



DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2704 Cherokee Farm Way, Suite 101
Knoxville, Tennessee 37920
P: (865) 977-9997 F: (865) 977-9919

PAGE 1 OF 4
DATE: 9/2/2021
REPORT NO: 069

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 1 Lower	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 86F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input type="checkbox"/> TEST RESULTS	<input type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 350G (Standard Reach), 1 John Deere 350G (Long Reach)
<u>Skid-steer:</u> Tach.TL10V2
<u>Material Hauling:</u> 2 Terramac RT14s
<u>Telehandler:</u> JLG G10-55A
<u>Fuel Tank:</u> 1 – 2,000 gallon tank
<u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, 2 UTVs• 4 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• B-Borrow (US Aggregates)
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OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews, Josh Boggs
- RW Gross – Shannon S, Nathan C
- United Rentals (demobilization of equipment)

Onsite Activities:

- O6ENV Personnel and CEC arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- RW Gross on site at 0900 to complete survey of post-backfill in Reach 2 and stake out Reach 3 – Duke Property excavation area.
- O6ENV completed backfill of Reach 2C and Reach 2D.
- O6ENV began spreading straw bed for restoration of Reach 2.
- Bobcat on site at 0900 to demobilize a Terramac.
- O6ENV consolidated materials in Reach 2 for demobilization.
- United Rentals on site to demobilize HDPE piping at 1400.
- The work areas were fenced off at the end of the day.
- All offsite at 1700.

Excavation: No Excavation Completed

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07

Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

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LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	41.92	706.54
Backfill Delivered (tons)	85.22	85.22
Aggregate (tons)	42.27	42.27
Topsoil (loads)	1	1

Sampling: No Samples Collected.

Laboratory Results: None.

CONTRACT LINE ITEMS PERFORMED:

- B4-6 Restoration
 - B4-6.2 – Backfill of Soil Excavation
- B4-7 Erosion and Sedimentation Control
 - B4-7.2 - Topsoil Placement
 - B4-7.3 – Vegetative Planting
- B4-8 Surveying
 - B4-8.3 – Post Excavation/ Post Backfill
- B5-1 Mobilization
- B5-2 Site Preparation
- B5-8 Surveying
 - B5-8.2 – Pre-Project Survey

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COMMUNICATION:

- None to report

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.



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PAGE 1 OF 5
DATE: 9/3/2021
REPORT NO: 070

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 1 Lower	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 80F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 350G (Standard Reach), 1 John Deere 350G (Long Reach) <u>Skid-steer:</u> Tach.TL10V2 <u>Material Hauling:</u> 2 Terramac RT14s <u>Telehandler:</u> JLG G10-55A <u>Fuel Tank:</u> 1 – 2,000 gallon tank <u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, 2 UTVs• 4 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)
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MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• None
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OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews, Josh Boggs
- ERM – Aaron Andrews

Onsite Activities:

- O6ENV Personnel and CEC arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- O6ENV spread straw over seed in Reach 2.
- O6ENV demobilized materials from Reach 2.
- ERM on site at 1030.
- Long reach excavator mobilized from Reach 2 to Reach 3.
- O6ENV and CEC offsite at 1100 for safety training and project safety meeting at Arconic Lafayette Facility.
- O6ENV and CEC back onsite at 1200.
- Duke Property to complete de-grubbing and matting for the haul road
- The work areas were fenced off at the end of the day.
- All offsite at 1700.

Excavation: No excavation completed.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07

Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date

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Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1

Sampling: No Samples Collected.

Laboratory Results: No laboratory results pending.

CONTRACT LINE ITEMS PERFORMED:

- B4-6 Restoration
 - B4-6.2 – Backfill of Soil Excavation
- B4-7 Erosion and Sedimentation Control
 - B4-7.2 - Topsoil Placement
 - B4-7.3 – Vegetative Planting
- B4-8 Surveying
 - B4-8.3 – Post Excavation/ Post Backfill
- B5-1 Mobilization
- B5-2 Site Preparation
- B5-8 Surveying
 - B5-8.2 – Pre-Project Survey

COMMUNICATION:

- Nothing to report.

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UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

PHOTOGRAPHS



Photo 1: Reach 2C after backfill and restoration completed.



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DATE: 9/07/2021
REPORT NO: 071

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 80F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 350G (Standard Reach), 1 John Deere 350G (Long Reach)
<u>Skid-steer:</u> Tach.TL10V2
<u>Material Hauling:</u> 2 Terramac RT14s
<u>Telehandler:</u> JLG G10-55A
<u>Fuel Tank:</u> 1 – 2,000 gallon tank
<u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, 2 UTVs• 4 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• B-Borrow (US Aggregates)
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OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews, Josh Boggs
- ERM – Aaron Alexander

Onsite Activities:

- O6ENV Personnel, CEC, and ERM arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- O6ENV completed select clearing activities and installed additional matting for the haul road in Reach 3 (i.e., Duke Property)
- B-Borrow was delivered to Reach 3 to be utilized to construct check dams.
- O6ENV installed check dams in Reach 3 upstream and downstream of the excavation areas. Standing water was managed within the dammed area by pumping the water through a sediment bag prior to discharging downstream. Care was taken to not mobilize sediment during the pumping process by maintaining the pump intake off of sediment.
- O6ENV began excavation activities of non-TSCA material in the eastern portion of excavation area of Reach 3. Material was amended with calciment. CEC confirmed the calciment was not generating an adverse exothermic reaction.
- O6ENV loaded one dump truck for offsite disposal at Republic’s Walnut Creek Landfill. The dump truck was lined prior to being loaded and supplied a disposal manifest. Prior to exiting the site, the dump truck was required to tarp (i.e., mechanically). The load was inspected prior to leaving the site.
- The excavation areas were fenced off at the end of the day. IM signage was installed.
- All offsite at 1700.

Excavation: Excavation activities were conducted in the eastern portion of the excavation area in Reach 3.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09

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Material Transported – non-amended (tons)	0	153.07
REACH 3		
Material Transported – Amended (tons)	24.8	24.8
Material Transported – non-amended (tons)	0	0

Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	111.3	111.3
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	0	0

Sampling: No Samples Collected.

Laboratory Results: No laboratory results pending.

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CONTRACT LINE ITEMS PERFORMED:

- B5-2.1 – Construct and Install Project Signage at Entrance
- B5-2.7 – Installation of Temporary Access Road for Sediment Removal
- B5-3 – Water Management
 - B5-3.1 – Installation of Cofferdam or Alternate Structures
 - B5-3.2 – Dewatering Interior of Isolation Structure
- B5-4 - Excavation, Management, and Disposal of Impacted Sediment (\geq RBROs PCBs)
 - B5-4.2 – Excavation of Impacted Sediment
 - B5-4.4 – Material Amendment
 - B5-4.5 – Load out of Excavated Material
 - B5-4.6 – Haul Truck Lining
 - B5-4.7 - Transportation of Impacted Material (RCRA Subtitle D Landfill)
 - B5-4.8 - Disposal of Impacted Material (RCRA Subtitle D Landfill)

COMMUNICATION:

- Nothing to report.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

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PHOTOGRAPHS



Photo 1: B-Borrow delivered for construction of check dams in Reach 3



Photo 2: Reach 3 stream conditions prior to dam construction and dewatering



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PAGE 1 OF 5
DATE: 9/8/2021
REPORT NO: 072

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 80F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 350G (Standard Reach), 1 John Deere 350G (Long Reach)
<u>Skid-steer:</u> Tach.TL10V2
<u>Material Hauling:</u> 2 Terramac RT14s
<u>Telehandler:</u> JLG G10-55A
<u>Fuel Tank:</u> 1 – 2,000 gallon tank
<u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, 2 UTVs• 4 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• None
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DATE: 9/8/2021
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OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews, Josh Boggs
- ERM – Aaron Alexander

Onsite Activities:

- O6ENV Personnel, CEC, and ERM arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- Additional dewatering was conducted in the dammed areas. Standing water was managed by pumping the water through a sediment removal bag prior to discharging downstream. Care was taken to not mobilize sediment during the pumping process by maintaining the pump intake off of sediment.
- O6ENV continued excavation activities in Reach 3. Material was amended with calciment. CEC utilized an IR gun to evaluate if the calciment was causing an exothermic reaction.
- O6ENV loaded dump trucks for offsite disposal at Republic’s Walnut Creek Landfill. Each dump truck was lined prior to being loaded and supplied a disposal manifest. Prior to exiting the site, each dump truck was required to tarp (i.e., mechanically). All dump truck loads were inspected prior to leaving the site.
 - Total loads for the day: 6
- O6ENV prepared the excavation bottoms for sampling.
- CEC collected confirmation samples from Reach 3 and sent samples via courier to TestAmerica. The collected samples were not on Duke property (i.e., upstream of Duke’s property).
- At approximately 1530, an excavator hydraulic line broke after getting caught on an overhanging tree branch. Approximately 25 gallons of hydraulic oil was released into the active excavation footprint. At the time of the release, ponded surface water was present in the excavation area. However, the hydraulic oil and ponded water was contained inside the excavation area and was not released downstream. All response and notifications were conducted as required in the SPCC plan. O6ENV skimmed the water with absorbent material to capture the hydraulic oil. Additionally, soil beneath the water was excavated as part of remedial activities. Oil containing material was disposed off-Site.
- The excavation areas were fenced off at the end of the day.
- All offsite at 1800.

Excavation: Excavation activities were conducted in Reach 3.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0

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Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07
REACH 3		
Material Transported – Amended (tons)	129.06	153.86
Material Transported – non-amended (tons)	0	0

Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	0	111.3
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	0	0

Sampling: CEC collected the following samples:

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- ED-R3SD-000
- ED-R3SD-001
- ED-R3SD-002.

Laboratory Results: No sample results pending.

CONTRACT LINE ITEMS PERFORMED:

- B5-3 – Water Management
 - B5-3.2 – Dewatering Interior of Isolation Structure
- B5-4 - Excavation, Management, and Disposal of Impacted Sediment (\geq RBROs PCBs)
 - B5-4.2 – Excavation of Impacted Sediment
 - B5-4.4 – Material Amendment
 - B5-4.5 – Load out of Excavated Material
 - B5-4.6 – Haul Truck Lining
 - B5-4.7 - Transportation of Impacted Material (RCRA Subtitle D Landfill)
 - B5-4.8 - Disposal of Impacted Material (RCRA Subtitle D Landfill)

COMMUNICATION:

- CEC discussed the hydraulic oil incident with Duke Energy on 9/8/2021 at 1530. CEC explained the incident and incident response. Duke Energy understood the approach and indicated that they would follow-up should a formal notice be required to the IDEM (i.e., a formal notice required per the direction of Duke Energy). Ultimately, Duke Energy did not follow-up until 9/9/2021 resulting in the regulatory notification being submitted beyond the required reporting period. CEC notified IDEM Spill Response on 9/9/2021 at 1030. IDEM Spill Response notified Mr. Don Stiliz of the incident, IDEM project manager for the remediation work, and no further action has been required to date.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

PHOTOGRAPHS

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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Photo 1: Reach 3 excavation area east of Duke's Property



Photo 2: Reach 3 excavation activities, in progress.



DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2704 Cherokee Farm Way, Suite 101
Knoxville, Tennessee 37920
P: (865) 977-9997 F: (865) 977-9919

PAGE 1 OF 5
DATE: 9/9/2021
REPORT NO: 073

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 79F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input checked="" type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 350G (Standard Reach), 1 John Deere 350G (Long Reach)
<u>Skid-steer:</u> Tach.TL10V2
<u>Material Hauling:</u> 2 Terramac RT14s
<u>Telehandler:</u> JLG G10-55A
<u>Fuel Tank:</u> 1 – 2,000 gallon tank
<u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, 2 UTVs• 4 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• None.

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/9/2021
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OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews, Josh Boggs
- ERM – Chris Burrows

Onsite Activities:

- O6ENV Personnel, CEC, and ERM arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- O6ENV began loading trucks brush material located in Lower Reach 1 for disposal.
- O6ENV completed restoration activities in Reach 2.
- O6ENV continued excavation activities in Reach 3. O6ENV loaded dump trucks for offsite disposal at Republic’s Walnut Creek Landfill. Each dump truck was lined prior to being loaded and supplied a disposal manifest. Prior to exiting the site, each dump truck was required to tarp (i.e., mechanically). All dump truck loads were inspected prior to leaving the site.
 - Total loads for the day: 9
- CEC collected samples from Reach 3 and sent samples with courier.
- The excavation areas were fenced off at the end of the day.
- All offsite at 1700.

Excavation: Excavation activities were conducted in Reach 3.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07
REACH 3		
Material Transported – Amended (tons)	192.30	346.16

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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Material Transported – non-amended (tons)	0	0
--	---	---

Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	0	111.3
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	0	0

Sampling: CEC collected the following samples:

- ED-R3SD-003
- ED-R3SD-004
- ED-R3SD-005
- ED-R3SD-006

Laboratory Results: Laboratory results received for samples collected on 9/8/21. See attached.

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CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/9/2021

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CONTRACT LINE ITEMS PERFORMED:

- B3-2.5 – Vegetative Debris Disposal
- B4-7 – Erosion and Sedimentation Control
 - B4-7.3 - Vegetative Planting
- B5-3 – Water Management
 - B5-3.2 – Dewatering Interior of Isolation Structure
- B5-4 - Excavation, Management, and Disposal of Impacted Sediment (\geq RBROs PCBs)
 - B5-4.2 – Excavation of Impacted Sediment
 - B5-4.4 – Material Amendment
 - B5-4.5 – Load out of Excavated Material
 - B5-4.6 – Haul Truck Lining
 - B5-4.7 - Transportation of Impacted Material (RCRA Subtitle D Landfill)
 - B5-4.8 - Disposal of Impacted Material (RCRA Subtitle D Landfill)

COMMUNICATION:

- Nothing to report.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/9/2021
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PHOTOGRAPHS



Photo 1: Duke Property excavation area in Reach 3.



Photo 2: Reach 3 excavation activities in progress

Excavation Confirmation Sampling PCB Analytical Results

Elliott Ditch - Reach 3

Arconic Lafayette Operations, Lafayette, Indiana

Type	Sample ID	Sample Date	Over - Excavation	PCB Aroclor (mg/Kg)							Total PCBs (mg/Kg)
				1016	1221	1232	1242	1248	1254	1260	
BE	ED-R3SD-000	9/8/2021	---	ND	ND	ND	ND	ND	ND	ND	ND
BE	ED-R3SD-DUP1 (000)	9/8/2021	---	ND	ND	ND	ND	ND	ND	ND	ND
BE	ED-R3SD-001	9/8/2021	---	ND	ND	ND	ND	ND	ND	ND	ND
BE	ED-R3SD-002	9/8/2021	---	ND	ND	ND	0.59	ND	ND	ND	0.59

Notes:
 Sample ID with "SW" indicates Sidewall Sample
 ND = constituent detected below the laboratory RL of 0.5 mg/Kg
 Red indicates an exceedance of 1.0 mg/Kg RBRO



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Knoxville, Tennessee 37920
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PAGE 1 OF 5
DATE: 9/10/2021
REPORT NO: 074

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 78F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input checked="" type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
--	---	---------------------------------	--------------------------------------

EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 350G (Standard Reach), 1 John Deere 350G (Long Reach) <u>Skid-steer:</u> Tach.TL10V2 <u>Material Hauling:</u> 2 Terramac RT14s <u>Telehandler:</u> JLG G10-55A <u>Fuel Tank:</u> 1 – 2,000 gallon tank <u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, 2 UTVs• 4 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)
--

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• B-Borrow (US Aggregates)
--

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/10/2021
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OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews, Josh Boggs
- ERM – Aaron Alexander

Onsite Activities:

- O6ENV Personnel, CEC, and ERM arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- O6ENV began loading vegetative debris into haul trucks for offsite disposal from Lower Reach 1.
- O6ENV continued excavation activities in Reach 3. O6ENV loaded dump trucks for offsite disposal at Republic’s Walnut Creek Landfill. Each dump truck was lined prior to being loaded and supplied a disposal manifest. Prior to exiting the site, each dump truck was required to tarp (i.e., mechanically). All dump truck loads were inspected prior to leaving the site. Sediment was amended prior to offsite disposal, as necessary.
 - Total loads for the day: 2
- ERM collected sediment samples for PAHs per Duke Energy’s request. CEC did not participate in the sample collection effort, or split samples.
- The excavation areas were fenced off at the end of the day.
- All offsite at 1700.

Excavation: Excavation activities were conducted in Reach 3 on Duke’s property.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07
REACH 3		
Material Transported – Amended (tons)	53.52	399.68

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CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/10/2021
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Material Transported – non-amended (tons)	0	0
--	---	---

Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	127.18	238.48
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	0	0

Sampling: No samples were collected.

Laboratory Results: Laboratory results received for samples collected on 9/9/21. See attached.

CONTRACT LINE ITEMS PERFORMED:

- B5-3 – Water Management
 - B5-3.2 – Dewatering Interior of Isolation Structure
- B5-4 - Excavation, Management, and Disposal of Impacted Sediment (≥RBROs PCBs)
 - B5-4.2 – Excavation of Impacted Sediment
 - B5-4.4 – Material Amendment

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/10/2021

REPORT NO: 074

- B5-4.5 – Load out of Excavated Material
- B5-4.6 – Haul Truck Lining
- B5-4.7 - Transportation of Impacted Material (RCRA Subtitle D Landfill)
- B5-4.8 - Disposal of Impacted Material (RCRA Subtitle D Landfill)
- B5-6.1 – Backfill of Sediment Excavation
 - B5-6.1.1 - Purchase, Transportation, and Delivery of B-Borrow Fill
 - B5-6.1.2 – Grade and compact excavation

COMMUNICATION:

- Nothing to report.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

PAGE 5 OF 5
DATE: 9/10/2021
REPORT NO: 074

PHOTOGRAPHS



Photo 1: Reach 3 active excavation footprint.



Photo 2: Backfilled area in Reach 3 upstream of Duke Property

Excavation Confirmation Sampling PCB Analytical Results

Elliott Ditch - Reach 3

Arconic Lafayette Operations, Lafayette, Indiana

Type	Sample ID	Sample Date	Over - Excavation	PCB Aroclor (mg/Kg)							Total PCBs (mg/Kg)
				1016	1221	1232	1242	1248	1254	1260	
BE	ED-R3SD-000	9/8/2021	--	ND	ND	ND	ND	ND	ND	ND	ND
BE	ED-R3SD-DUP1 (000)	9/8/2021	--	ND	ND	ND	ND	ND	ND	ND	ND
BE	ED-R3SD-001	9/8/2021	--	ND	ND	ND	ND	ND	ND	ND	ND
BE	ED-R3SD-002	9/8/2021	--	ND	ND	ND	0.59	ND	ND	ND	0.59
BE	ED-R3SD-003	9/9/2021	--	ND	ND	3.4	ND	ND	ND	ND	3.4
BE	ED-R3SD-004	9/9/2021	--	ND	ND	ND	ND	ND	ND	ND	ND
BE	ED-R3SD-005	9/9/2021	--	ND	ND	1.3	ND	ND	ND	ND	1.3
BE	ED-R3SD-006	9/9/2021	--	ND	ND	0.72	ND	ND	ND	ND	0.72
SW	ED-R3SD-SW01	9/9/2021	--	ND	ND	ND	ND	ND	ND	ND	ND

Notes:
Sample ID with "SW" indicates Sidewall Sample
ND = constituent detected below the laboratory RL of 0.5 mg/Kg
Red indicates an exceedance of 1.0 mg/Kg RBRO



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CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
 2704 Cherokee Farm Way, Suite 101
 Knoxville, Tennessee 37920
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PAGE 1 OF 5
DATE: 9/11/2021
REPORT NO: 075

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3 – Duke Property	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 85F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<p><u>Excavator:</u> John Deere 350G (Standard Reach), 1 John Deere 350G (Long Reach)</p> <p><u>Skid-steer:</u> Tach.TL10V2</p> <p><u>Material Hauling:</u> 2 Terramac RT14s</p> <p><u>Telehandler:</u> JLG G10-55A</p> <p><u>Fuel Tank:</u> 1 – 2,000 gallon tank</p> <p><u>Miscellaneous Equipment:</u></p> <ul style="list-style-type: none"> • Water Truck, 2 UTVs • 4 Work Trucks • Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container • Wacker Neuson G25 20kW Generator • 2 Trash Pumps and Associated Hose and Fittings • 1 Dumpster (4 yard)
--

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none"> • None.

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/11/2021
REPORT NO: 075

OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews, Josh Boggs
- ERM – Chris Burrows

Onsite Activities:

- O6ENV Personnel, CEC, and ERM arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- O6ENV over excavated areas 003 and 005 in Reach 3 following the receipt of laboratory analytical results. O6ENV loaded dump trucks for offsite disposal at Republic’s Walnut Creek Landfill. Each dump truck was lined prior to being loaded and supplied a disposal manifest. Prior to exiting the site, each dump truck was required to tarp (i.e., mechanically). All dump truck loads were inspected prior to leaving the site.
 - Total loads for the day: 3
- CEC collected over-excavation samples from grids 003 and 005. CEC delivered the samples to TestAmerica under chain of custody.
- CEC offsite at 1200.
- The excavation areas were fenced off at the end of the day.
- All offsite at 1400.

Excavation: Excavation activities were conducted in Reach 3.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07
REACH 3		
Material Transported – Amended (tons)	76.82	476.5

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CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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Material Transported – non-amended (tons)	0	0
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Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	0	238.48
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	0	0

Sampling: CEC collected the following samples:

- ED-R3SD-003-1
- ED-R3SD-005-1

Laboratory Results: No results pending.

CONTRACT LINE ITEMS PERFORMED:

- B5-3 – Water Management
 - B5-3.2 – Dewatering Interior of Isolation Structure
- B5-4 - Excavation, Management, and Disposal of Impacted Sediment (≥RBROs PCBs)

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/11/2021

REPORT NO: 075

- B5-4.2 – Excavation of Impacted Sediment
- B5-4.4 – Material Amendment
- B5-4.5 – Load out of Excavated Material
- B5-4.6 – Haul Truck Lining
- B5-4.7 - Transportation of Impacted Material (RCRA Subtitle D Landfill)
- B5-4.8 - Disposal of Impacted Material (RCRA Subtitle D Landfill)
- B5-6.1 – Backfill of Sediment Excavation
 - B5-6.1.1 - Purchase, Transportation, and Delivery of B-Borrow Fill
 - B5-6.1.2 – Grade and compact excavation

COMMUNICATION:

- Nothing to report.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

PAGE 5 OF 5

DATE: 9/11/2021

REPORT NO: 075

PHOTOGRAPHS



Photo 1: Over-excavation of area 005 in Reach 3 – Duke Property



DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2704 Cherokee Farm Way, Suite 101
Knoxville, Tennessee 37920
P: (865) 977-9997 F: (865) 977-9919

PAGE 1 OF 5
DATE: 9/13/2021
REPORT NO: 076

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 87F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 350G (Standard Reach), 1 John Deere 350G (Long Reach)
<u>Skid-steer:</u> Tach.TL10V2
<u>Material Hauling:</u> 2 Terramac RT14s
<u>Telehandler:</u> JLG G10-55A
<u>Fuel Tank:</u> 1 – 2,000 gallon tank
<u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, 2 UTVs• 3 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• B-Borrow (US Aggregates)
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**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

PAGE 2 OF 5
DATE: 9/13/2021
REPORT NO: 076

OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews
- ERM – Chris Burrows

Onsite Activities:

- O6ENV Personnel, CEC, and ERM arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- O6ENV completed vegetative debris load out in Lower Reach 1 for disposal.
- O6ENV loaded dump trucks for offsite disposal at Republic’s Walnut Creek Landfill. Each dump truck was lined prior to being loaded and supplied a disposal manifest. Prior to exiting the site, each dump truck was required to tarp (i.e., mechanically). All dump truck loads were inspected prior to leaving the site.
 - Total loads for the day: 6
- B-Borrow was delivered to the site in preparation for backfill.
- O6ENV had the excavator brought over to Reach 2 to load brush pile for offsite disposal.
- The excavation areas were fenced off at the end of the day.
- All offsite at 1700.

Excavation: Excavation activities were conducted in Reach 3.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07
REACH 3		
Material Transported – Amended (tons)	165.26	641.76
Material Transported – non-amended (tons)	0	0

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	39.38	277.86
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	0	0

Sampling: No samples collected.

Laboratory Results: Results pending.

CONTRACT LINE ITEMS PERFORMED:

- B4-2.5 – Vegetative Debris Disposal
- B5-4 - Excavation, Management, and Disposal of Impacted Sediment (≥RBROs PCBs)
 - B5-4.2 – Excavation of Impacted Sediment
 - B5-4.4 – Material Amendment
 - B5-4.5 – Load out of Excavated Material
 - B5-4.6 – Haul Truck Lining
 - B5-4.7 - Transportation of Impacted Material (RCRA Subtitle D Landfill)

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- B5-4.8 - Disposal of Impacted Material (RCRA Subtitle D Landfill)
- B5-6.1 – Backfill of Sediment Excavation
 - B5-6.1.1 - Purchase, Transportation, and Delivery of B-Borrow Fill
 - B5-6.1.2 – Grade and compact excavation

COMMUNICATION:

- Nothing to report.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

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PHOTOGRAPHS



Photo 1: Brush pile staged in Reach 2 for offsite disposal.



Photo 2: Brush pile in Lower Reach 1 being hauled off by trucks



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CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2704 Cherokee Farm Way, Suite 101
Knoxville, Tennessee 37920
P: (865) 977-9997 F: (865) 977-9919

PAGE 1 OF 5
DATE: 9/14/2021
REPORT NO: 077

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 90F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 310, 1 John Deere 350G (Long Reach)
<u>Skid-steer:</u> Tach.TL10V2
<u>Material Hauling:</u> Terramac RT14s
<u>Telehandler:</u> JLG G10-55A
<u>Fuel Tank:</u> 1 – 2,000 gallon tank
<u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, UTV• 3 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• B-Borrow (US Aggregates)
--

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews
- ERM – Chris Burrows

Onsite Activities:

- O6ENV Personnel, CEC, and ERM arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities. The safety topic focused on vegetative debris management activities.
- O6ENV mobilized the excavator to Reach 2 to load brush pile.
- O6ENV completed vegetative debris load out in Reach 2 for offsite disposal.
- O6ENV imported B-borrow backfill to Reach 3 for installation within Elliott Ditch..
 - Total loads for the day: 11
- O6ENV completed backfill activities in Reach 3.
- John Deere 310 picked up and demobilized from site.
- The excavation areas were fenced off at the end of the day.
- All offsite at 1700.

Excavation: Excavation activities complete.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07
REACH 3		
Material Transported – Amended (tons)	0	641.76
Material Transported – non-amended (tons)	0	0

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/14/2021
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Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	225.72	503.58
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	0	0

Sampling: No samples collected.

Laboratory Results: No sample results pending.

CONTRACT LINE ITEMS PERFORMED:

- B4-2.5 – Vegetative Debris Disposal
- B5-6.1 – Backfill of Sediment Excavation
 - B5-6.1.1 - Purchase, Transportation, and Delivery of B-Borrow Fill
 - B5-6.1.2 – Grade and compact excavation
- B5-7 – Erosion and Sedimentation Control
- B5-9 - Demobilization

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CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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COMMUNICATION:

- Nothing to report.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

PHOTOGRAPHS



Photo 1: Haul road after equipment demobilized from Reach 3.

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Photo 2: Upper Reach 1 location where additional topsoil/seed was placed to promote vegetative growth.



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2704 Cherokee Farm Way, Suite 101
Knoxville, Tennessee 37920
P: (865) 977-9997 F: (865) 977-9919

PAGE 1 OF 5
DATE: 9/15/2021
REPORT NO: 078

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 80F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> John Deere 350G (Long Reach) <u>Skid-steer:</u> Tach.TL10V2 <u>Material Hauling:</u> Terramac RT14s <u>Telehandler:</u> JLG G10-55A <u>Fuel Tank:</u> 1 – 2,000 gallon tank <u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, UTV• 3 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• Topsoil• Rip-rap

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/15/2021
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OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV – Elvis Armstrong, Tyler Bundren, Keegan Andrews
- ERM – Aaron Alexander

Onsite Activities:

- O6ENV Personnel, CEC, and ERM arrived to the office trailer at 0700.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- O6ENV mobilized an excavator to Upper Reach 1.
- O6ENV had a load of rip-rap brought to Upper Reach 1 and backfilled the area beneath the staircase for Outfall 001.
- O6ENV demobilized the haul road mats in Reach 3.
- CEC mobilized to the Duke Property to collect post construction samples in accordance with the approved SAP. ERM was present to observe and accept split samples
- John Deere 350G long reach was demobilized from site.
- O6ENV prepared surficial soil along haul road in Reach 3 Duke Property for seeding.
- Two loads of topsoil were delivered to Reach 3 and topsoil was placed along haul road, where appropriate.
- The excavation area fences were removed at the end of the day.
- All offsite at 1700.

Excavation: Excavation activities complete.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07
REACH 3		

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Material Transported – Amended (tons)	0	641.76
Material Transported – non-amended (tons)	0	0

Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	515.58

Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	0	503.58
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	2	2

Sampling: Samples ED-DP01-1 through ED-DP11-1 collected (plus QA/QC samples).

Laboratory Results: Duke property sampling results pending.

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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DATE: 9/15/2021
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CONTRACT LINE ITEMS PERFORMED:

- B2-5.3 – Riprap Installation
- B4-2.5 – Vegetative Debris Disposal
- B5-6.1 – Backfill of Sediment Excavation
 - B5-6.1.1 - Purchase, Transportation, and Delivery of B-Borrow Fill
 - B5-6.1.2 – Grade and Compact Excavation
- B5-7 – Erosion and Sedimentation Control
- B5-9 - Demobilization

COMMUNICATION:

- Nothing to report.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm’s professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

PHOTOGRAPHS



Photo 1: Backfilled Reach 3 – Duke Property facing downstream.

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Photo 2: Samples aliquot locations along haul road (Duke Property).



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2704 Cherokee Farm Way, Suite 101
Knoxville, Tennessee 37920
P: (865) 977-9997 F: (865) 977-9919

PAGE 1 OF 4
DATE: 9/16/2021
REPORT NO: 080

PROJECT INFORMATION

PROJECT NAME: Elliott Ditch Reach 1-3 Isolated Soil & Sediment Remediation	
LOCATION: Reach 3	CEC PROJECT: 172-367
PLANS AND SPECIFICATIONS BY: CEC, Inc.	WEATHER: 83F, sunny

PERSONNEL

CEC FIELD REPRESENTATIVE: I. Jorgensen	CEC PROJECT MANAGER: Matt Bruck
CLIENT: Arconic Lafayette, LLC	CLIENT CONTACT: Robert Prezbindowski
GENERAL CONTRACTOR: O6 Environmental, LLC	SITE SUPERINTENDENT: Keegan Andrews

THIS REPORT INCLUDES:

<input checked="" type="checkbox"/> TEST RESULTS	<input checked="" type="checkbox"/> PHOTOGRAPHS	<input type="checkbox"/> SKETCH	<input type="checkbox"/> ATTACHMENTS
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EQUIPMENT ONSITE:

<u>Excavator:</u> None
<u>Skid-steer:</u> Tach.TL10V2
<u>Material Hauling:</u> N/A
<u>Telehandler:</u> JLG G10-55A
<u>Fuel Tank:</u> 1 – 2,000 gallon tank
<u>Miscellaneous Equipment:</u> <ul style="list-style-type: none">• Water Truck, UTV• 3 Work Trucks• Rental Fence, Office Trailer, 3 Porta Johns, Hand Wash Station, Storage Container• Wacker Neuson G25 20kW Generator• 2 Trash Pumps and Associated Hose and Fittings• 1 Dumpster (4 yard)

MATERIAL DELIVERED ONSITE:

<ul style="list-style-type: none">• None.

**DAILY FIELD OBSERVATION REPORT
CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

PAGE 2 OF 4
DATE: 9/16/2021
REPORT NO: 080

OBSERVATIONS:

Site personnel includes:

- CEC – Ian Jorgensen
- O6ENV –Tyler Bundren, Keegan Andrews

Onsite Activities:

- O6ENV Personnel and CEC arrived to the office trailer at 0800.
- O6ENV completed daily equipment inspections.
- Morning health and safety meeting held prior to commencing the day’s project activities.
- O6ENV loaded haul road mats on flatbed truck in Reach 3 and demobilized all equipment.
- CEC offsite at 1000.
- All offsite at 1200.

Excavation: Excavation activities were conducted in Reach 3.

Transportation of non-TSCA regulated material (PCB <50 ppm) for offsite disposal:

- Off-site Disposal:

UPPER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	16,727.46
Material Transported – non-amended (tons)	0	0
LOWER REACH 1		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0
Material Transported – non-amended (tons)	0	1,528.73
REACH 2		
Non-TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	763.09
Material Transported – non-amended (tons)	0	153.07
REACH 3		
Material Transported – Amended (tons)	0	641.76
Material Transported – non-amended (tons)	0	0

Transportation of TSCA regulated material (PCB >50 ppm) for offsite disposal:

- Off-site Disposal:

LOWER REACH 1		
TSCA Regulated	Daily	To Date
Material Transported – Amended (tons)	0	0

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Material Transported – non-amended (tons)	0	515.58
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Backfill:

- Material Import:

UPPER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	14,492.04
Topsoil (loads)	0	45
LOWER REACH 1		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	249.29
Backfill Delivered (tons)	0	1,591.16
Topsoil (loads)	0	36
REACH 2		
Backfill	Daily	To Date
B-Borrow Backfill Delivered (tons)	0	706.54
Backfill Delivered (tons)	0	85.22
Aggregate (tons)	0	42.27
Topsoil (loads)	0	1
REACH 3		
B-Borrow Backfill Delivered (tons)	0	503.58
Backfill Delivered (tons)	0	0
Aggregate (tons)	0	0
Topsoil (loads)	0	2

Sampling: No samples collected.

Laboratory Results: Duke Property post-excavation results received.

CONTRACT LINE ITEMS PERFORMED:

- B5-9 – Demobilization

COMMUNICATION:

- Nothing to report.

UNEXPECTED, UNUSUAL, OR NONCONFORMING OBSERVATIONS: None

NOTICE: Our firm's professionals are represented on site solely to observe operations of the contractor identified, to form opinions about the adequacy of those operations, and to report those opinions to our client. The presence and activities of our field representative do not relieve the contractor from its obligation to meet contractual requirements. The contractor retains sole responsibility for site safety and the methods, operations, and sequences of construction.

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CIVIL & ENVIRONMENTAL CONSULTANTS, INC.**

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REPORT NO: 080

PHOTOGRAPHS



Photo 1: Matting staged in Reach 3 to be hauled offsite.

Duke Property - PCB Analytical Results
Elliott Ditch
Arconic Lafayette Operations, Lafayette, Indiana

Type	Sample ID	Sample Date	PCB Aroclor (mg/Kg)	
			1248	1254
Soil	ED-DP01	8/3/2021	<0.40	<0.40
Soil	ED-DP02	8/3/2021	<0.38	<0.38
Soil	ED-DP-D (ED-DP02)	8/3/2021	<0.39	<0.39
Soil	ED-DP-03	8/3/2021	<0.38	<0.38
Soil	ED-DP04	8/3/2021	<0.39	<0.39
Soil	ED-DP05	8/3/2021	<0.38	<0.38
Soil	ED-DP06	8/3/2021	<0.39	<0.39
Soil	ED-DP07	8/3/2021	<0.38	<0.38
Soil	ED-DP08	8/3/2021	<0.38	<0.38
Soil	ED-DP09	8/3/2021	<0.38	<0.38
Soil	ED-DP10	8/3/2021	<0.40	<0.40
Soil	ED-DP11	8/3/2021	<0.38	<0.38
 				
Soil	ED-DP01-1	9/15/2021	<0.40	<0.40
Soil	ED-DP02-1	9/15/2021	<0.39	<0.39
Soil	ED-DP03-1	9/15/2021	<0.40	<0.40
Soil	ED-DP-D-1 (ED-DP03-1)	9/15/2021	<0.40	<0.40
Soil	ED-DP04-1	9/15/2021	<0.40	<0.40
Soil	ED-DP05-1	9/15/2021	<0.40	<0.40
Soil	ED-DP06-1	9/15/2021	<0.41	<0.41
Soil	ED-DP07-1	9/15/2021	<0.41	<0.41
Soil	ED-DP08-1	9/15/2021	<0.39	<0.39
Soil	ED-DP09-1	9/15/2021	<0.39	<0.39
Soil	ED-DP10-1	9/15/2021	<0.40	<0.40
Soil	ED-DP11-1	9/15/2021	0.68	<0.39

Notes:
mg/Kg - milligram/kilogram

Notes:
mg/Kg = milligram/kilogram
DP = Duke Property
ED = Elliott Ditch
ED-DP-D = Duplicate Sample Associated with ED-DP02

APPENDIX XIV

LABORATORY ANALYTICAL RESULTS

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-200930-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



*Authorized for release by:
6/18/2021 9:29:54 AM*

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Job ID: 500-200930-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-200930-1

Comments

No additional comments.

Receipt

The samples were received on 6/16/2021 3:53 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

GC Semi VOA

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: ED-R1SD-004 (500-200930-5), ED-R1SD-002 (500-200930-6), ED-R1SD-SW003N (500-200930-9), ED-R1SD-SW003N (500-200930-9[MS]), ED-R1SD-SW003N (500-200930-9[MSD]), ED-R1SD-006 (500-200930-11), ED-R1SD-005 (500-200930-12) and ED-R1SD-SW005N (500-200930-14).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-000 (500-200930-1), ED-R1SD-001 (500-200930-2), ED-R1SD-001 (500-200930-2[MS]), ED-R1SD-001 (500-200930-2[MSD]), ED-R1SD-DUP1 (500-200930-3), ED-R1SD-003 (500-200930-4), ED-R1SD-004 (500-200930-5), ED-R1SD-002 (500-200930-6), ED-R1SD-SW001N (500-200930-7), ED-R1SD-SWDUP1 (500-200930-8), ED-R1SD-SW003N (500-200930-9), ED-R1SD-SW003N (500-200930-9[MS]), ED-R1SD-SW003N (500-200930-9[MSD]), ED-R1SD-006 (500-200930-11), ED-R1SD-005 (500-200930-12), ED-R1SD-SW004S (500-200930-13) and ED-R1SD-SW005N (500-200930-14). The reagent lot number used was Z07G073.

Method 8082A: The following samples were diluted due to the nature of the sample matrix: ED-R1SD-001 (500-200930-2[MS]) and ED-R1SD-001 (500-200930-2[MSD]). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8082A: The following samples were reported from the primary column due to PCB-1016 recovering outside control limits for the continuing calibration verification (CCVIS) on the secondary column; therefore, the higher of the two results have been reported. ED-R1SD-SW005N (500-200930-14) and (CCVIS 500-604674/1)

Method 8082A: DCB Decachlorobiphenyl Surrogate recovery for the following samples were outside control limits: ED-R1SD-004 (500-200930-5), ED-R1SD-002 (500-200930-6), ED-R1SD-SW003N (500-200930-9[MS]) and ED-R1SD-006 (500-200930-11). Tetrachloro-m-xylene Surrogate was within the control limits; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-604502 and analytical batch 500-604794 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-000

Lab Sample ID: 500-200930-1

No Detections.

Client Sample ID: ED-R1SD-001

Lab Sample ID: 500-200930-2

No Detections.

Client Sample ID: ED-R1SD-DUP1

Lab Sample ID: 500-200930-3

No Detections.

Client Sample ID: ED-R1SD-003

Lab Sample ID: 500-200930-4

No Detections.

Client Sample ID: ED-R1SD-004

Lab Sample ID: 500-200930-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.3		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-002

Lab Sample ID: 500-200930-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.69		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW001N

Lab Sample ID: 500-200930-7

No Detections.

Client Sample ID: ED-R1SD-SWDUP1

Lab Sample ID: 500-200930-8

No Detections.

Client Sample ID: ED-R1SD-SW003N

Lab Sample ID: 500-200930-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.6		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-006

Lab Sample ID: 500-200930-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.6		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-005

Lab Sample ID: 500-200930-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.72		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW004S

Lab Sample ID: 500-200930-13

No Detections.

Client Sample ID: ED-R1SD-SW005N

Lab Sample ID: 500-200930-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	2.5		0.46		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-200930-1	ED-R1SD-000	Solid	06/16/21 12:00	06/16/21 15:53	
500-200930-2	ED-R1SD-001	Solid	06/16/21 12:25	06/16/21 15:53	
500-200930-3	ED-R1SD-DUP1	Solid	06/16/21 00:00	06/16/21 15:53	
500-200930-4	ED-R1SD-003	Solid	06/16/21 12:35	06/16/21 15:53	
500-200930-5	ED-R1SD-004	Solid	06/16/21 12:45	06/16/21 15:53	
500-200930-6	ED-R1SD-002	Solid	06/16/21 12:15	06/16/21 15:53	
500-200930-7	ED-R1SD-SW001N	Solid	06/16/21 12:40	06/16/21 15:53	
500-200930-8	ED-R1SD-SWDUP1	Solid	06/16/21 00:00	06/16/21 15:53	
500-200930-9	ED-R1SD-SW003N	Solid	06/16/21 12:50	06/16/21 15:53	
500-200930-11	ED-R1SD-006	Solid	06/16/21 13:55	06/16/21 15:53	
500-200930-12	ED-R1SD-005	Solid	06/16/21 13:50	06/16/21 15:53	
500-200930-13	ED-R1SD-SW004S	Solid	06/16/21 14:00	06/16/21 15:53	
500-200930-14	ED-R1SD-SW005N	Solid	06/16/21 14:02	06/16/21 15:53	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-000

Lab Sample ID: 500-200930-1

Date Collected: 06/16/21 12:00

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 01:28	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 01:28	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 01:28	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 01:28	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 01:28	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 01:28	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 01:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	107		49 - 129	06/16/21 16:24	06/17/21 01:28	20
DCB Decachlorobiphenyl	144	S1+	37 - 121	06/16/21 16:24	06/17/21 01:28	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-001

Lab Sample ID: 500-200930-2

Date Collected: 06/16/21 12:25

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 89.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37	F1	0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 01:43	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 01:43	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 01:43	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 01:43	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 01:43	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 01:43	20
PCB-1260	<0.37	F1	0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 01:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/16/21 16:24	06/17/21 01:43	20
DCB Decachlorobiphenyl	96		37 - 121	06/16/21 16:24	06/17/21 01:43	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-DUP1

Lab Sample ID: 500-200930-3

Date Collected: 06/16/21 00:00

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 86.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 02:30	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 02:30	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 02:30	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 02:30	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 02:30	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 02:30	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/16/21 16:24	06/17/21 02:30	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	06/16/21 16:24	06/17/21 02:30	20
DCB Decachlorobiphenyl	116		37 - 121	06/16/21 16:24	06/17/21 02:30	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-003

Lab Sample ID: 500-200930-4

Date Collected: 06/16/21 12:35

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 02:45	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 02:45	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 02:45	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 02:45	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 02:45	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 02:45	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 02:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	105		49 - 129	06/16/21 16:24	06/17/21 02:45	20
DCB Decachlorobiphenyl	140	S1+	37 - 121	06/16/21 16:24	06/17/21 02:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-004

Lab Sample ID: 500-200930-5

Date Collected: 06/16/21 12:45

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 80.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 22:10	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 22:10	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 22:10	20
PCB-1242	1.3		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 22:10	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 22:10	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 22:10	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 22:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	104		49 - 129	06/16/21 16:24	06/17/21 22:10	20
DCB Decachlorobiphenyl	152	S1+	37 - 121	06/16/21 16:24	06/17/21 22:10	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-002

Lab Sample ID: 500-200930-6

Date Collected: 06/16/21 12:15

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 84.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 22:26	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 22:26	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 22:26	20
PCB-1242	0.69		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 22:26	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 22:26	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 22:26	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 22:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	98		49 - 129	06/16/21 16:24	06/17/21 22:26	20
DCB Decachlorobiphenyl	129	S1+	37 - 121	06/16/21 16:24	06/17/21 22:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-SW001N

Lab Sample ID: 500-200930-7

Date Collected: 06/16/21 12:40

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 91.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:41	20
PCB-1221	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:41	20
PCB-1232	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:41	20
PCB-1242	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:41	20
PCB-1248	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:41	20
PCB-1254	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:41	20
PCB-1260	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		49 - 129	06/16/21 16:24	06/17/21 22:41	20
DCB Decachlorobiphenyl	117		37 - 121	06/16/21 16:24	06/17/21 22:41	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-SWDUP1

Lab Sample ID: 500-200930-8

Date Collected: 06/16/21 00:00

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 91.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:57	20
PCB-1221	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:57	20
PCB-1232	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:57	20
PCB-1242	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:57	20
PCB-1248	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:57	20
PCB-1254	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:57	20
PCB-1260	<0.35		0.35		mg/Kg	☼	06/16/21 16:24	06/17/21 22:57	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	06/16/21 16:24	06/17/21 22:57	20
DCB Decachlorobiphenyl	106		37 - 121	06/16/21 16:24	06/17/21 22:57	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-SW003N

Lab Sample ID: 500-200930-9

Date Collected: 06/16/21 12:50

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 84.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39	F1 F2	0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 23:12	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 23:12	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 23:12	20
PCB-1242	2.6		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 23:12	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 23:12	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 23:12	20
PCB-1260	<0.39	F1	0.39		mg/Kg	☼	06/16/21 16:24	06/17/21 23:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	06/16/21 16:24	06/17/21 23:12	20
DCB Decachlorobiphenyl	111		37 - 121	06/16/21 16:24	06/17/21 23:12	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-006

Lab Sample ID: 500-200930-11

Date Collected: 06/16/21 13:55

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 81.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 23:59	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 23:59	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 23:59	20
PCB-1242	1.6		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 23:59	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 23:59	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 23:59	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 23:59	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	124		49 - 129	06/16/21 16:24	06/17/21 23:59	20
DCB Decachlorobiphenyl	154	S1+	37 - 121	06/16/21 16:24	06/17/21 23:59	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-005

Lab Sample ID: 500-200930-12

Date Collected: 06/16/21 13:50

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 86.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/16/21 16:24	06/18/21 00:14	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/16/21 16:24	06/18/21 00:14	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/16/21 16:24	06/18/21 00:14	20
PCB-1242	0.72		0.38		mg/Kg	☼	06/16/21 16:24	06/18/21 00:14	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/16/21 16:24	06/18/21 00:14	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/16/21 16:24	06/18/21 00:14	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/16/21 16:24	06/18/21 00:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/16/21 16:24	06/18/21 00:14	20
DCB Decachlorobiphenyl	97		37 - 121	06/16/21 16:24	06/18/21 00:14	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-SW004S

Lab Sample ID: 500-200930-13

Date Collected: 06/16/21 14:00

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 80.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 05:19	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 05:19	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 05:19	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 05:19	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 05:19	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 05:19	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/16/21 16:24	06/17/21 05:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	06/16/21 16:24	06/17/21 05:19	20
DCB Decachlorobiphenyl	91		37 - 121	06/16/21 16:24	06/17/21 05:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-SW005N

Lab Sample ID: 500-200930-14

Date Collected: 06/16/21 14:02

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 71.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.5		0.46		mg/Kg	☼	06/16/21 16:24	06/17/21 16:16	20
PCB-1221	<0.46		0.46		mg/Kg	☼	06/16/21 16:24	06/17/21 16:16	20
PCB-1232	<0.46		0.46		mg/Kg	☼	06/16/21 16:24	06/17/21 16:16	20
PCB-1242	<0.46		0.46		mg/Kg	☼	06/16/21 16:24	06/17/21 16:16	20
PCB-1248	<0.46		0.46		mg/Kg	☼	06/16/21 16:24	06/17/21 16:16	20
PCB-1254	<0.46		0.46		mg/Kg	☼	06/16/21 16:24	06/17/21 16:16	20
PCB-1260	<0.46		0.46		mg/Kg	☼	06/16/21 16:24	06/17/21 16:16	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	79		49 - 129	06/16/21 16:24	06/17/21 16:16	20
<i>DCB Decachlorobiphenyl</i>	119		37 - 121	06/16/21 16:24	06/17/21 16:16	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

GC Semi VOA

Prep Batch: 604502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200930-1	ED-R1SD-000	Total/NA	Solid	3541	
500-200930-2	ED-R1SD-001	Total/NA	Solid	3541	
500-200930-3	ED-R1SD-DUP1	Total/NA	Solid	3541	
500-200930-4	ED-R1SD-003	Total/NA	Solid	3541	
500-200930-5	ED-R1SD-004	Total/NA	Solid	3541	
500-200930-6	ED-R1SD-002	Total/NA	Solid	3541	
500-200930-7	ED-R1SD-SW001N	Total/NA	Solid	3541	
500-200930-8	ED-R1SD-SWDUP1	Total/NA	Solid	3541	
500-200930-9	ED-R1SD-SW003N	Total/NA	Solid	3541	
500-200930-11	ED-R1SD-006	Total/NA	Solid	3541	
500-200930-12	ED-R1SD-005	Total/NA	Solid	3541	
500-200930-13	ED-R1SD-SW004S	Total/NA	Solid	3541	
500-200930-14	ED-R1SD-SW005N	Total/NA	Solid	3541	
MB 500-604502/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-604502/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-200930-2 MS	ED-R1SD-001	Total/NA	Solid	3541	
500-200930-2 MSD	ED-R1SD-001	Total/NA	Solid	3541	
500-200930-9 MS	ED-R1SD-SW003N	Total/NA	Solid	3541	
500-200930-9 MSD	ED-R1SD-SW003N	Total/NA	Solid	3541	

Analysis Batch: 604551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200930-1	ED-R1SD-000	Total/NA	Solid	8082A	604502
500-200930-2	ED-R1SD-001	Total/NA	Solid	8082A	604502
500-200930-3	ED-R1SD-DUP1	Total/NA	Solid	8082A	604502
500-200930-4	ED-R1SD-003	Total/NA	Solid	8082A	604502
500-200930-13	ED-R1SD-SW004S	Total/NA	Solid	8082A	604502
MB 500-604502/1-A	Method Blank	Total/NA	Solid	8082A	604502
LCS 500-604502/2-A	Lab Control Sample	Total/NA	Solid	8082A	604502
500-200930-2 MS	ED-R1SD-001	Total/NA	Solid	8082A	604502
500-200930-2 MSD	ED-R1SD-001	Total/NA	Solid	8082A	604502

Analysis Batch: 604674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200930-14	ED-R1SD-SW005N	Total/NA	Solid	8082A	604502

Analysis Batch: 604794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200930-5	ED-R1SD-004	Total/NA	Solid	8082A	604502
500-200930-6	ED-R1SD-002	Total/NA	Solid	8082A	604502
500-200930-7	ED-R1SD-SW001N	Total/NA	Solid	8082A	604502
500-200930-8	ED-R1SD-SWDUP1	Total/NA	Solid	8082A	604502
500-200930-9	ED-R1SD-SW003N	Total/NA	Solid	8082A	604502
500-200930-11	ED-R1SD-006	Total/NA	Solid	8082A	604502
500-200930-12	ED-R1SD-005	Total/NA	Solid	8082A	604502
500-200930-9 MS	ED-R1SD-SW003N	Total/NA	Solid	8082A	604502
500-200930-9 MSD	ED-R1SD-SW003N	Total/NA	Solid	8082A	604502

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

General Chemistry

Analysis Batch: 604564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200930-1	ED-R1SD-000	Total/NA	Solid	Moisture	
500-200930-2	ED-R1SD-001	Total/NA	Solid	Moisture	
500-200930-3	ED-R1SD-DUP1	Total/NA	Solid	Moisture	
500-200930-4	ED-R1SD-003	Total/NA	Solid	Moisture	
500-200930-5	ED-R1SD-004	Total/NA	Solid	Moisture	
500-200930-6	ED-R1SD-002	Total/NA	Solid	Moisture	
500-200930-7	ED-R1SD-SW001N	Total/NA	Solid	Moisture	
500-200930-8	ED-R1SD-SWDUP1	Total/NA	Solid	Moisture	
500-200930-9	ED-R1SD-SW003N	Total/NA	Solid	Moisture	
500-200930-11	ED-R1SD-006	Total/NA	Solid	Moisture	
500-200930-12	ED-R1SD-005	Total/NA	Solid	Moisture	
500-200930-13	ED-R1SD-SW004S	Total/NA	Solid	Moisture	
500-200930-14	ED-R1SD-SW005N	Total/NA	Solid	Moisture	
500-200930-3 DU	ED-R1SD-DUP1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-200930-1	ED-R1SD-000	107	144 S1+
500-200930-2	ED-R1SD-001	76	96
500-200930-2 MS	ED-R1SD-001	66	85
500-200930-2 MSD	ED-R1SD-001	72	96
500-200930-3	ED-R1SD-DUP1	83	116
500-200930-4	ED-R1SD-003	105	140 S1+
500-200930-13	ED-R1SD-SW004S	69	91
LCS 500-604502/2-A	Lab Control Sample	69	89
MB 500-604502/1-A	Method Blank	86	117

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-200930-5	ED-R1SD-004	104	152 S1+
500-200930-6	ED-R1SD-002	98	129 S1+
500-200930-7	ED-R1SD-SW001N	92	117
500-200930-8	ED-R1SD-SWDUP1	89	106
500-200930-9	ED-R1SD-SW003N	87	111
500-200930-9 MS	ED-R1SD-SW003N	80	137 S1+
500-200930-9 MSD	ED-R1SD-SW003N	88	114
500-200930-11	ED-R1SD-006	124	154 S1+
500-200930-12	ED-R1SD-005	68	97
500-200930-14	ED-R1SD-SW005N	79	119

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-604502/1-A
Matrix: Solid
Analysis Batch: 604551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604502

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.017		0.017		mg/Kg		06/16/21 16:24	06/17/21 00:57			1
PCB-1221	<0.017		0.017		mg/Kg		06/16/21 16:24	06/17/21 00:57			1
PCB-1232	<0.017		0.017		mg/Kg		06/16/21 16:24	06/17/21 00:57			1
PCB-1242	<0.017		0.017		mg/Kg		06/16/21 16:24	06/17/21 00:57			1
PCB-1248	<0.017		0.017		mg/Kg		06/16/21 16:24	06/17/21 00:57			1
PCB-1254	<0.017		0.017		mg/Kg		06/16/21 16:24	06/17/21 00:57			1
PCB-1260	<0.017		0.017		mg/Kg		06/16/21 16:24	06/17/21 00:57			1

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	86		49 - 129	06/16/21 16:24		06/17/21 00:57		1
DCB Decachlorobiphenyl	117		37 - 121	06/16/21 16:24		06/17/21 00:57		1

Lab Sample ID: LCS 500-604502/2-A
Matrix: Solid
Analysis Batch: 604551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604502

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	0.167	0.134		mg/Kg		80	57 - 120	
PCB-1260	0.167	0.149		mg/Kg		89	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	69		49 - 129
DCB Decachlorobiphenyl	89		37 - 121

Lab Sample ID: 500-200930-2 MS
Matrix: Solid
Analysis Batch: 604551

Client Sample ID: ED-R1SD-001
Prep Type: Total/NA
Prep Batch: 604502

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<0.37	F1	0.181	<0.36	F1	mg/Kg	☼	122	57 - 120	
PCB-1260	<0.37	F1	0.181	<0.36	F1	mg/Kg	☼	0	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	66		49 - 129
DCB Decachlorobiphenyl	85		37 - 121

Lab Sample ID: 500-200930-2 MSD
Matrix: Solid
Analysis Batch: 604551

Client Sample ID: ED-R1SD-001
Prep Type: Total/NA
Prep Batch: 604502

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<0.37	F1	0.183	<0.37	F1	mg/Kg	☼	108	57 - 120	12	30	
PCB-1260	<0.37	F1	0.183	<0.37	F1	mg/Kg	☼	0	61 - 125	NC	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	72		49 - 129
DCB Decachlorobiphenyl	96		37 - 121

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 500-200930-9 MS

Matrix: Solid

Analysis Batch: 604794

Client Sample ID: ED-R1SD-SW003N

Prep Type: Total/NA

Prep Batch: 604502

Analyte	Sample	Sample	Spike	MS MS		Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
PCB-1016	<0.39	F1 F2	0.194	2.74	F1	mg/Kg	⊛	1412	57 - 120	
PCB-1260	<0.39	F1	0.194	0.421	F1	mg/Kg	⊛	217	61 - 125	
		MS MS								
Surrogate	%Recovery	Qualifier	Limits							
<i>Tetrachloro-m-xylene</i>	80		49 - 129							
<i>DCB Decachlorobiphenyl</i>	137	S1+	37 - 121							

Lab Sample ID: 500-200930-9 MSD

Matrix: Solid

Analysis Batch: 604794

Client Sample ID: ED-R1SD-SW003N

Prep Type: Total/NA

Prep Batch: 604502

Analyte	Sample	Sample	Spike	MSD MSD		Unit	D	%Rec	%Rec.	Limits	RPD	
	Result	Qualifier	Added	Result	Qualifier						RPD	Limit
PCB-1016	<0.39	F1 F2	0.193	4.79	F1 F2	mg/Kg	⊛	2478	57 - 120	55	30	
PCB-1260	<0.39	F1	0.193	0.524	F1	mg/Kg	⊛	271	61 - 125	22	30	
		MSD MSD										
Surrogate	%Recovery	Qualifier	Limits									
<i>Tetrachloro-m-xylene</i>	88		49 - 129									
<i>DCB Decachlorobiphenyl</i>	114		37 - 121									

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-000

Date Collected: 06/16/21 12:00

Date Received: 06/16/21 15:53

Lab Sample ID: 500-200930-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-000

Date Collected: 06/16/21 12:00

Date Received: 06/16/21 15:53

Lab Sample ID: 500-200930-1

Matrix: Solid

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604551	06/17/21 01:28	SS	TAL CHI

Client Sample ID: ED-R1SD-001

Date Collected: 06/16/21 12:25

Date Received: 06/16/21 15:53

Lab Sample ID: 500-200930-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-001

Date Collected: 06/16/21 12:25

Date Received: 06/16/21 15:53

Lab Sample ID: 500-200930-2

Matrix: Solid

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604551	06/17/21 01:43	SS	TAL CHI

Client Sample ID: ED-R1SD-DUP1

Date Collected: 06/16/21 00:00

Date Received: 06/16/21 15:53

Lab Sample ID: 500-200930-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP1

Date Collected: 06/16/21 00:00

Date Received: 06/16/21 15:53

Lab Sample ID: 500-200930-3

Matrix: Solid

Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604551	06/17/21 02:30	SS	TAL CHI

Client Sample ID: ED-R1SD-003

Date Collected: 06/16/21 12:35

Date Received: 06/16/21 15:53

Lab Sample ID: 500-200930-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-003

Lab Sample ID: 500-200930-4

Date Collected: 06/16/21 12:35

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604551	06/17/21 02:45	SS	TAL CHI

Client Sample ID: ED-R1SD-004

Lab Sample ID: 500-200930-5

Date Collected: 06/16/21 12:45

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-004

Lab Sample ID: 500-200930-5

Date Collected: 06/16/21 12:45

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604794	06/17/21 22:10	PJ1	TAL CHI

Client Sample ID: ED-R1SD-002

Lab Sample ID: 500-200930-6

Date Collected: 06/16/21 12:15

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-002

Lab Sample ID: 500-200930-6

Date Collected: 06/16/21 12:15

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604794	06/17/21 22:26	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW001N

Lab Sample ID: 500-200930-7

Date Collected: 06/16/21 12:40

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-SW001N

Lab Sample ID: 500-200930-7

Date Collected: 06/16/21 12:40

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604794	06/17/21 22:41	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SWDUP1

Lab Sample ID: 500-200930-8

Date Collected: 06/16/21 00:00

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-SWDUP1

Lab Sample ID: 500-200930-8

Date Collected: 06/16/21 00:00

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 91.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604794	06/17/21 22:57	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW003N

Lab Sample ID: 500-200930-9

Date Collected: 06/16/21 12:50

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW003N

Lab Sample ID: 500-200930-9

Date Collected: 06/16/21 12:50

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604794	06/17/21 23:12	PJ1	TAL CHI

Client Sample ID: ED-R1SD-006

Lab Sample ID: 500-200930-11

Date Collected: 06/16/21 13:55

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-006

Lab Sample ID: 500-200930-11

Date Collected: 06/16/21 13:55

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604794	06/17/21 23:59	PJ1	TAL CHI

Client Sample ID: ED-R1SD-005

Lab Sample ID: 500-200930-12

Date Collected: 06/16/21 13:50

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-005

Lab Sample ID: 500-200930-12

Date Collected: 06/16/21 13:50

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604794	06/18/21 00:14	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW004S

Lab Sample ID: 500-200930-13

Date Collected: 06/16/21 14:00

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW004S

Lab Sample ID: 500-200930-13

Date Collected: 06/16/21 14:00

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604551	06/17/21 05:19	SS	TAL CHI

Client Sample ID: ED-R1SD-SW005N

Lab Sample ID: 500-200930-14

Date Collected: 06/16/21 14:02

Matrix: Solid

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	604564	06/17/21 06:24	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Client Sample ID: ED-R1SD-SW005N

Lab Sample ID: 500-200930-14

Date Collected: 06/16/21 14:02

Matrix: Solid

Date Received: 06/16/21 15:53

Percent Solids: 71.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604502	06/16/21 16:24	JP1	TAL CHI
Total/NA	Analysis	8082A		20	604674	06/17/21 16:16	EF	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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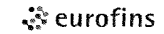
14

15

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: <u>Garrett Welch</u>		Lab PM: <u>Kintz Robin M</u>		Carrier Tracking No(s):		COC No: <u>500-92290-41114 1</u>			
Client Contact: <u>Jenny Rickford O'Brien</u>		Phone: <u>865-440-1655</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin: <u>Indiana</u>		Page: <u>Page 1 of 5</u>			
Company: <u>Civil & Environmental Consultants Inc</u>		PWSID:		Analysis Requested						Job #: <u>500-200930</u>	
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested: <u>6/17/2021</u>		TAT Requested (days): <u>24 HOUR RUSH</u>		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No		Preservation Codes		Other:	
City: <u>Knoxville</u>		PO #: <u>Purchase Order not required</u>		WO #:		Field Filtered Sample (Yes or No)		A HCL M Hexane		B NaOH N None	
State Zip: <u>TN 37920</u>		Project #: <u>50019033</u>		SSOW#:		Perform MS/MSD (Yes or No)		C Zn Acetate O AsNaO2		D Nitric Acid P Na2O4S	
Phone: <u>865-340-4914(Tel)</u>		Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>		Site: <u>Arconic - Elliott Ditch</u>		8082A - PCBs		E NaHSO4 Q Na2SO3		F MeOH R Na2S2O3	
Email: <u>jrickfordobrien@cecinc.com / gwelch@cecinc.com</u>		Sample Identification		Sample Date		Sample Time		8082A - Default List		G Amchlor S H2SO4	
Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		MS/MSD		H Ascorbic Acid T TSP Dodecahydrate	
Site: <u>Arconic - Elliott Ditch</u>		Preservation Code		Sample Date		Sample Time		N N		I - Ice U Acetone	
Total Number of Containers		Special Instructions/Note		Sample Date		Sample Time		X X		J DI Water V MCAA	
1		ED - RISD - 000		6/16/21		1205		X X		K EDTA W - pH 4-5	
3		ED - RISD - 001		6/16/21		1225		X X		L EDA Z other (specify)	
1		ED - RISD - DUPI		6/16/21		/		X X			
1		ED - RISD - 003		6/16/21		1235		X X			
1		ED - RISD - 004		6/16/21		1245		X X			
1		ED - RISD - 002		6/16/21		1215		X X			
1		ED - RISD - SW001 N		6/16/21		1240		X X			
1		ED - RISD - SWDUPI		6/16/21		/		X X			
3		ED - RISD - SW003 N		6/16/21		1250		X X			
2		ED - RISD - EB1		6/16/21		1400		X X			
1		ED - RISD - 005 006		6/16/21		1350		X X			
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/> Disposal By Lab <input checked="" type="checkbox"/> Archive For _____ Months		Deliverable Requested (II, III, IV Other (specify))		Special Instructions/QC Requirements			
Empty Kit Relinquished by:		Date		Time		Method of Shipment:					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/16/21 1441</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>6/16/21 1441</u>		Company: <u>ETA</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/16/21 1553</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>6/16/21 1553</u>		Company: <u>ETA/CHL</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>3.4-73.1</u>							

100-99265-CEC
 100-99265-CEC
 100-99265-CEC

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins Environment Testing
America

Client Information		Sampler <i>Garrett Welch</i>		Lab PM Kintz Robin M		Carrier Tracking No(s):		COC No 500-92290-41114 2														
Client Contact Jenny Rickford O'Brien		Phone <i>865-440-1655</i>		E-Mail Robin.Kintz@Eurofinset.com		State of Origin <i>Indiana</i>		Page Page 2 of 5														
Company Civil & Environmental Consultants Inc		PWSID		Analysis Requested					Job#: <i>500-200930</i>													
Address 2704 Cherokee Farm Way Suite 101		Due Date Requested <i>6/17/2021</i>		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>8082A - PCBs</td> <td>8082A - Default List</td> <td>MS/WSD</td> <td>Total Number of containers</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>					Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	8082A - Default List	MS/WSD	Total Number of containers							Preservation Codes	
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	8082A - Default List						MS/WSD	Total Number of containers												
City Knoxville		TAT Requested (days) <i>24 HOUR RUSH</i>							A HCL		M Hexane											
State, Zip TN 37920		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No							B NaOH		N None											
Phone 865-340-4914(Tel)		PO #: Purchase Order not required		C Zn Acetate		O AsNaO2																
Email jrickfordobrien@cecinc.com / gwelch@cecinc.com		WO #:		D Nitric Acid		P - Na2O4S																
Project Name Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		E NaHSO4		Q Na2SO3																
Site <i>Arconic - Elliott Ditch</i>		SSOW#:		F MeOH		R Na2S2O3																
				G Amchlor		S H2SO4																
				H Ascorbic Acid		T TSP Dodecahydrate																
				I Ice		U Acetone																
				J DI Water		V MCAA																
				K EDTA		W pH 4-5																
				L EDA		Z other (specify)																
						Other:																

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	8082A - Default List	MS/WSD	Total Number of containers	Special Instructions/Note
							N	N			
<i>12</i> <i>13</i> <i>14</i> ED-RISD-005	<i>6/16/21</i>	<i>1350</i>	<i>C</i>	<i>S</i>			X			<i>1</i>	
ED-RISD-SW004S	<i>6/16/21</i>	<i>1400</i>	<i>C</i>	<i>S</i>			X			<i>1</i>	
ED-RISD-SW005N	<i>6/16/21</i>	<i>1402</i>	<i>C</i>	<i>S</i>			X			<i>1</i>	
<i>[Signature]</i> <i>6/16/21</i>											

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:
Relinquished by: <i>[Signature]</i>	<i>6/16/21</i>	<i>1441</i>	
Relinquished by: <i>[Signature]</i>	<i>6/16/21</i>	<i>1553</i>	<i>EVA</i>
Relinquished by:	Date/Time	Company	Received by: <i>[Signature]</i>
			Date/Time: <i>6/16/21 1441</i> Company: <i>EVA</i>
			Date/Time: <i>6/16/21 1553</i> Company: <i>EVA</i>

Custody Seals Intact Yes No Custody Seal No

Cooler Temperature(s) °C and Other Remarks

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-200930-1

Login Number: 200930

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-200930-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/18/2021 7:50:04 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Job ID: 500-200930-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-200930-2

Comments

No additional comments.

Receipt

The samples were received on 6/16/2021 3:53 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

GC Semi VOA

Method 8082A: The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-EB1 (500-200930-10). The reagent lot number used was Z07G073.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-604553/1). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-604507 and analytical batch 500-604553 recovered outside control limits for the following analytes: PCB-1016 and PCB-1260.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Client Sample ID: ED-R1SD-EB1

Lab Sample ID: 500-200930-10

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-200930-10	ED-R1SD-EB1	Water	06/16/21 14:00	06/16/21 15:53	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Client Sample ID: ED-R1SD-EB1

Lab Sample ID: 500-200930-10

Date Collected: 06/16/21 14:00

Matrix: Water

Date Received: 06/16/21 15:53

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39	*1	0.39		ug/L		06/16/21 16:41	06/17/21 03:07	1
PCB-1221	<0.39		0.39		ug/L		06/16/21 16:41	06/17/21 03:07	1
PCB-1232	<0.39		0.39		ug/L		06/16/21 16:41	06/17/21 03:07	1
PCB-1242	<0.39		0.39		ug/L		06/16/21 16:41	06/17/21 03:07	1
PCB-1248	<0.39		0.39		ug/L		06/16/21 16:41	06/17/21 03:07	1
PCB-1254	<0.39		0.39		ug/L		06/16/21 16:41	06/17/21 03:07	1
PCB-1260	<0.39	*1	0.39		ug/L		06/16/21 16:41	06/17/21 03:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		30 - 120	06/16/21 16:41	06/17/21 03:07	1
DCB Decachlorobiphenyl	41		30 - 140	06/16/21 16:41	06/17/21 03:07	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

GC Semi VOA

Prep Batch: 604507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200930-10	ED-R1SD-EB1	Total/NA	Water	3510C	
MB 500-604507/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-604507/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-604507/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 604553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-200930-10	ED-R1SD-EB1	Total/NA	Water	8082A	604507
MB 500-604507/1-A	Method Blank	Total/NA	Water	8082A	604507
LCS 500-604507/4-A	Lab Control Sample	Total/NA	Water	8082A	604507
LCSD 500-604507/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	604507

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-200930-10	ED-R1SD-EB1	63	41
LCS 500-604507/4-A	Lab Control Sample	51	57
LCSD 500-604507/5-A	Lab Control Sample Dup	60	68
MB 500-604507/1-A	Method Blank	87	88

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-604507/1-A
Matrix: Water
Analysis Batch: 604553

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604507

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.40		0.40		ug/L		06/16/21 16:41	06/17/21 01:30			1
PCB-1221	<0.40		0.40		ug/L		06/16/21 16:41	06/17/21 01:30			1
PCB-1232	<0.40		0.40		ug/L		06/16/21 16:41	06/17/21 01:30			1
PCB-1242	<0.40		0.40		ug/L		06/16/21 16:41	06/17/21 01:30			1
PCB-1248	<0.40		0.40		ug/L		06/16/21 16:41	06/17/21 01:30			1
PCB-1254	<0.40		0.40		ug/L		06/16/21 16:41	06/17/21 01:30			1
PCB-1260	<0.40		0.40		ug/L		06/16/21 16:41	06/17/21 01:30			1

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	87		30 - 120	06/16/21 16:41	06/17/21 01:30			1
DCB Decachlorobiphenyl	88		30 - 140	06/16/21 16:41	06/17/21 01:30			1

Lab Sample ID: LCS 500-604507/4-A
Matrix: Water
Analysis Batch: 604553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604507

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	4.00	2.24		ug/L		56	56 - 120	
PCB-1260	4.00	2.53		ug/L		63	53 - 137	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	51		30 - 120
DCB Decachlorobiphenyl	57		30 - 140

Lab Sample ID: LCSD 500-604507/5-A
Matrix: Water
Analysis Batch: 604553

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 604507

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits		RPD	
		Result	Qualifier						RPD	Limit
PCB-1016	4.00	2.84	*1	ug/L		71	56 - 120	24	20	
PCB-1260	4.00	3.27	*1	ug/L		82	53 - 137	25	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	60		30 - 120
DCB Decachlorobiphenyl	68		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Client Sample ID: ED-R1SD-EB1

Lab Sample ID: 500-200930-10

Date Collected: 06/16/21 14:00

Matrix: Water

Date Received: 06/16/21 15:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			604507	06/16/21 16:41	ACK	TAL CHI
Total/NA	Analysis	8082A		1	604553	06/17/21 03:07	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-200930-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Sampler: <u>Garrett Welch</u>		Lab PM: <u>Kintz Robin M</u>		Carrier Tracking No(s):		COC No: <u>500-92290-41114 1</u>	
Client Contact: <u>Jenny Rickford O'Brien</u>		Phone: <u>865-440-1655</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin: <u>Indiana</u>		Page: <u>Page 1 of 5</u>	
Company: <u>Civil & Environmental Consultants Inc</u>		PWSID		Analysis Requested				Job #: <u>500-200930</u>	
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested: <u>6/17/2021</u>		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs 8082A - Default List MS/MSD				Total Number of Containers Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I - Ice U Acetone J DI Water V MCAA K EDTA W - pH 4-5 L EDA Z other (specify)	
City: <u>Knoxville</u>		TAT Requested (days): <u>24 HOUR RUSH</u>							
State Zip: <u>TN 37920</u>		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: <u>865-340-4914(Tel)</u>		PO #: <u>Purchase Order not required</u>							
Email: <u>jrickfordobrien@cecinc.com / gwelch@cecinc.com</u>		WO #:							
Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>		Project #: <u>50019033</u>						Other:	
Site: <u>Arconic - Elliott Ditch</u>		SSOW#:							
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code*	
<u>ED-RISD-000</u>		<u>6/16/21</u>		<u>1205</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-001</u>		<u>6/16/21</u>		<u>1225</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-DUPI</u>		<u>6/16/21</u>		<u>/</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-003</u>		<u>6/16/21</u>		<u>1235</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-004</u>		<u>6/16/21</u>		<u>1245</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-002</u>		<u>6/16/21</u>		<u>1215</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-SW001N</u>		<u>6/16/21</u>		<u>1240</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-SWDUPI</u>		<u>6/16/21</u>		<u>/</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-SW003N</u>		<u>6/16/21</u>		<u>1250</u>		<u>C S</u>		<u>S</u>	
<u>ED-RISD-EB1</u>		<u>6/16/21</u>		<u>1400</u>		<u>G W</u>		<u>S</u>	
<u>ED-RISD-005 006</u>		<u>6/16/21</u>		<u>1350</u>		<u>C S</u>		<u>S</u>	
Possible Hazard Identification <u>CAW 6/16/21</u>		<input checked="" type="checkbox"/> Non-Hazard		<input type="checkbox"/> Flammable		<input type="checkbox"/> Skin Irritant		<input type="checkbox"/> Poison B	
		<input type="checkbox"/> Unknown		<input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client		<input checked="" type="checkbox"/> Disposal By Lab	
		<input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements					
Deliverable Requested <u>(II, III IV Other (specify))</u>									
Empty Kit Relinquished by:		Date		Time		Method of Shipment:			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/16/21 1441</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>6/16/21 1441</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/16/21 1553</u>		Company: <u>[Signature]</u>		Received by: <u>[Signature]</u>		Date/Time: <u>6/16/21 1553</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact		Custody Seal No		Cooler Temperature(s) °C and Other Remarks					
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				<u>3.4-7.3.1</u>					

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax: 708-534-5211

Chain of Custody Record



Client Information			Sampler Garrett Welch	Lab PM Kintz Robin M	Carrier Tracking No(s)	COC No 500-92290-41114 2										
Client Contact Jenny Rickford O'Brien			Phone 865-440-1655	E-Mail Robin.Kintz@Eurofinset.com	State of Origin Indiana	Page Page 2 of 5										
Company Civil & Environmental Consultants Inc			PWSID	Analysis Requested		Job# 500-200930										
Address 2704 Cherokee Farm Way Suite 101			Due Date Requested 6/17/2021			Preservation Codes										
City Knoxville			TAT Requested (days) 24 HOUR RUSH			A HCL M Hexane										
State, Zip TN 37920			Compliance Project Δ Yes Δ No			B NaOH N None										
Phone 865-340-4914(Tel)			PO #: Purchase Order not required			C Zn Acetate O AsNaO2										
Email jrickfordobrien@cecinc.com / gwelch@cecinc.com			WO #:			D Nitric Acid P - Na2O4S										
Project Name Arconic PCB Rush Project - Lafayette IN			Project #: 50019033			E NaHSO4 Q Na2SO3										
Site Arconic - Elliott Ditch			SSOW#:			F MeOH R Na2S2O3										
						G Amchlor S H2SO4										
						H Ascorbic Acid T TSP Dodecahydrate										
						I Ice U Acetone										
						J DI Water V MCAA										
						K EDTA W pH 4-5										
						L EDA Z other (specify)										
						Other:										
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	8092A - Default List	MS/MSD	Total Number of Containers	Special Instructions/Note					
Preservation Code: X X N N																
ED-RISD-005	6/16/21	1350	C	S	X	X				1						
ED-RISD-SW004S	6/16/21	1400	C	S	X	X				1						
ED-RISD-SW005N	6/16/21	1402	C	S	X	X				1						
<p>Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p>						<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p>										
						Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)			Special Instructions/QC Requirements							
						Empty Kit Relinquished by:			Date	Time	Method of Shipment:					
						Relinquished by:		Date/Time: 6/16/21 1441	Company: EVA	Received by:		Date/Time: 6/16/21 1441	Company: EVA			
Relinquished by:		Date/Time: 6/16/21 1553	Company: EVA	Received by:		Date/Time: 6/16/21 1553	Company: ETHA/ETHI									
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:									
Custody Seals Intact Δ Yes Δ No			Custody Seal No			Cooler Temperature(s) °C and Other Remarks										

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6/16/21



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-200930-2

Login Number: 200930

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

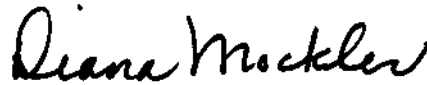
Laboratory Job ID: 500-201143-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

6/22/2021 8:09:25 AM

Diana Mockler, Project Manager I
(219)252-7570

Diana.Mockler@Eurofinset.com

Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Job ID: 500-201143-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201143-1

Comments

No additional comments.

Receipt

The samples were received on 6/18/2021 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

GC Semi VOA

Method 8082A: The following samples were diluted to bring the concentration of target analytes within the calibration range: ED-R1SD-007 (500-201143-1), ED-R1SD-008 (500-201143-2), ED-R1SD-009 (500-201143-3), ED-R1SD-010 (500-201143-4), ED-R1SD-011 (500-201143-5), ED-R1SD-012 (500-201143-6), ED-R1SD-013 (500-201143-7), ED-R1SD-014 (500-201143-8), ED-R1SD-015 (500-201143-9), ED-R1SD-016 (500-201143-10), ED-R1SD-017 (500-201143-11), ED-R1SD-SW006S (500-201143-15), ED-R1SD-SW007N (500-201143-16), ED-R1SD-SW008S (500-201143-17), ED-R1SD-SW009N (500-201143-18), ED-R1SD-SW011N (500-201143-20), ED-R1SD-004-1 (500-201143-24), ED-R1SD-006-1 (500-201143-25), ED-R1SD-SW003N-1 (500-201143-26) and ED-R1SD-SW005N-1 (500-201143-27). Elevated reporting limits (RLs) are provided.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: ED-R1SD-007 (500-201143-1), ED-R1SD-008 (500-201143-2), ED-R1SD-009 (500-201143-3), ED-R1SD-010 (500-201143-4), ED-R1SD-011 (500-201143-5), ED-R1SD-012 (500-201143-6), ED-R1SD-013 (500-201143-7), ED-R1SD-014 (500-201143-8), ED-R1SD-015 (500-201143-9), ED-R1SD-016 (500-201143-10), ED-R1SD-017 (500-201143-11), ED-R1SD-SW007N (500-201143-16), ED-R1SD-SW009N (500-201143-18), ED-R1SD-SW011N (500-201143-20), ED-R1SD-SW003N-1 (500-201143-26) and ED-R1SD-SW005N-1 (500-201143-27).

Method 8082A: The continuing calibration verification (CCVIS) 500-605033/5 was below the method criteria for DCB Decachlorobiphenyl and PCB-1260 on the primary column. The secondary column recovered within control limits; therefore, the data has been reported. (CCVIS 500-605033/2)

Method 8082A: The continuing calibration verification (CCVIS) 500-605170 was below the method criteria for PCB-1260 on the primary column. The secondary column recovered within control limits; therefore, the data has been reported. (CCVIS 500-605170/2)

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-007 (500-201143-1), ED-R1SD-008 (500-201143-2), ED-R1SD-012 (500-201143-6), ED-R1SD-016 (500-201143-10), ED-R1SD-017 (500-201143-11), ED-R1SD-SW009N (500-201143-18), ED-R1SD-SW011N (500-201143-20), (500-201143-A-1-B MS) and (500-201143-A-1-C MSD). The reagent lot number used was: Z07G073.

Method 8082A: Surrogate recovery for the following samples were outside control limits: ED-R1SD-009 (500-201143-3) and (500-201143-A-21-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-007

Lab Sample ID: 500-201143-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	3.4		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-008

Lab Sample ID: 500-201143-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.5		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-009

Lab Sample ID: 500-201143-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.7		0.78		mg/Kg	40	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-010

Lab Sample ID: 500-201143-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.5		0.79		mg/Kg	40	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-011

Lab Sample ID: 500-201143-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.9		0.82		mg/Kg	40	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-012

Lab Sample ID: 500-201143-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.0		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-013

Lab Sample ID: 500-201143-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	5.9		2.0		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-014

Lab Sample ID: 500-201143-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.9		0.79		mg/Kg	40	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-015

Lab Sample ID: 500-201143-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	5.1		4.0		mg/Kg	200	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-016

Lab Sample ID: 500-201143-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.2		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-017

Lab Sample ID: 500-201143-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.0		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW006S

Lab Sample ID: 500-201143-15

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW007N

Lab Sample ID: 500-201143-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.4		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW008S

Lab Sample ID: 500-201143-17

No Detections.

Client Sample ID: ED-R1SD-SW009N

Lab Sample ID: 500-201143-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	3.3		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW011N

Lab Sample ID: 500-201143-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	3.0		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-004-1

Lab Sample ID: 500-201143-24

No Detections.

Client Sample ID: ED-R1SD-006-1

Lab Sample ID: 500-201143-25

No Detections.

Client Sample ID: ED-R1SD-SW003N-1

Lab Sample ID: 500-201143-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	1.3		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW005N-1

Lab Sample ID: 500-201143-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1254	1.6		0.40		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201143-1	ED-R1SD-007	Solid	06/17/21 15:35	06/18/21 16:45	
500-201143-2	ED-R1SD-008	Solid	06/17/21 15:45	06/18/21 16:45	
500-201143-3	ED-R1SD-009	Solid	06/17/21 15:50	06/18/21 16:45	
500-201143-4	ED-R1SD-010	Solid	06/17/21 15:55	06/18/21 16:45	
500-201143-5	ED-R1SD-011	Solid	06/17/21 16:00	06/18/21 16:45	
500-201143-6	ED-R1SD-012	Solid	06/17/21 16:10	06/18/21 16:45	
500-201143-7	ED-R1SD-013	Solid	06/17/21 16:20	06/18/21 16:45	
500-201143-8	ED-R1SD-014	Solid	06/17/21 16:23	06/18/21 16:45	
500-201143-9	ED-R1SD-015	Solid	06/17/21 16:25	06/18/21 16:45	
500-201143-10	ED-R1SD-016	Solid	06/17/21 16:35	06/18/21 16:45	
500-201143-11	ED-R1SD-017	Solid	06/17/21 16:40	06/18/21 16:45	
500-201143-15	ED-R1SD-SW006S	Solid	06/17/21 17:15	06/18/21 16:45	
500-201143-16	ED-R1SD-SW007N	Solid	06/17/21 17:20	06/18/21 16:45	
500-201143-17	ED-R1SD-SW008S	Solid	06/17/21 17:30	06/18/21 16:45	
500-201143-18	ED-R1SD-SW009N	Solid	06/17/21 17:35	06/18/21 16:45	
500-201143-20	ED-R1SD-SW011N	Solid	06/17/21 17:50	06/18/21 16:45	
500-201143-24	ED-R1SD-004-1	Solid	06/18/21 14:45	06/18/21 16:45	
500-201143-25	ED-R1SD-006-1	Solid	06/18/21 14:55	06/18/21 16:45	
500-201143-26	ED-R1SD-SW003N-1	Solid	06/18/21 15:05	06/18/21 16:45	
500-201143-27	ED-R1SD-SW005N-1	Solid	06/18/21 15:15	06/18/21 16:45	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-007

Lab Sample ID: 500-201143-1

Date Collected: 06/17/21 15:35

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40	F1 F2	0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:10	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:10	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:10	20
PCB-1242	3.4		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:10	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:10	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:10	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	122		49 - 129	06/18/21 17:15	06/21/21 09:10	20
<i>DCB Decachlorobiphenyl</i>	110		37 - 121	06/18/21 17:15	06/21/21 09:10	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-008

Lab Sample ID: 500-201143-2

Date Collected: 06/17/21 15:45

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:56	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:56	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:56	20
PCB-1242	2.5		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:56	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:56	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:56	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 09:56	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		49 - 129	06/18/21 17:15	06/21/21 09:56	20
DCB Decachlorobiphenyl	99		37 - 121	06/18/21 17:15	06/21/21 09:56	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-009

Lab Sample ID: 500-201143-3

Date Collected: 06/17/21 15:50

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 85.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.78		0.78		mg/Kg	☼	06/18/21 17:15	06/21/21 13:51	40
PCB-1221	<0.78		0.78		mg/Kg	☼	06/18/21 17:15	06/21/21 13:51	40
PCB-1232	<0.78		0.78		mg/Kg	☼	06/18/21 17:15	06/21/21 13:51	40
PCB-1242	2.7		0.78		mg/Kg	☼	06/18/21 17:15	06/21/21 13:51	40
PCB-1248	<0.78		0.78		mg/Kg	☼	06/18/21 17:15	06/21/21 13:51	40
PCB-1254	<0.78		0.78		mg/Kg	☼	06/18/21 17:15	06/21/21 13:51	40
PCB-1260	<0.78		0.78		mg/Kg	☼	06/18/21 17:15	06/21/21 13:51	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	140	S1+	49 - 129	06/18/21 17:15	06/21/21 13:51	40
<i>DCB Decachlorobiphenyl</i>	163	S1+	37 - 121	06/18/21 17:15	06/21/21 13:51	40

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-010

Lab Sample ID: 500-201143-4

Date Collected: 06/17/21 15:55

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 84.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:53	40
PCB-1221	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:53	40
PCB-1232	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:53	40
PCB-1242	1.5		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:53	40
PCB-1248	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:53	40
PCB-1254	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:53	40
PCB-1260	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:53	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	87		49 - 129	06/18/21 17:15	06/21/21 14:53	40
<i>DCB Decachlorobiphenyl</i>	91		37 - 121	06/18/21 17:15	06/21/21 14:53	40

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-011

Lab Sample ID: 500-201143-5

Date Collected: 06/17/21 16:00

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 80.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.82		0.82		mg/Kg	☼	06/18/21 17:15	06/21/21 14:07	40
PCB-1221	<0.82		0.82		mg/Kg	☼	06/18/21 17:15	06/21/21 14:07	40
PCB-1232	<0.82		0.82		mg/Kg	☼	06/18/21 17:15	06/21/21 14:07	40
PCB-1242	1.9		0.82		mg/Kg	☼	06/18/21 17:15	06/21/21 14:07	40
PCB-1248	<0.82		0.82		mg/Kg	☼	06/18/21 17:15	06/21/21 14:07	40
PCB-1254	<0.82		0.82		mg/Kg	☼	06/18/21 17:15	06/21/21 14:07	40
PCB-1260	<0.82		0.82		mg/Kg	☼	06/18/21 17:15	06/21/21 14:07	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	102		49 - 129	06/18/21 17:15	06/21/21 14:07	40
DCB Decachlorobiphenyl	108		37 - 121	06/18/21 17:15	06/21/21 14:07	40

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-012

Lab Sample ID: 500-201143-6

Date Collected: 06/17/21 16:10

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 84.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/21/21 11:01	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/21/21 11:01	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/21/21 11:01	20
PCB-1242	2.0		0.39		mg/Kg	☼	06/18/21 17:15	06/21/21 11:01	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/21/21 11:01	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/21/21 11:01	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/21/21 11:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		49 - 129	06/18/21 17:15	06/21/21 11:01	20
DCB Decachlorobiphenyl	107		37 - 121	06/18/21 17:15	06/21/21 11:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-013

Lab Sample ID: 500-201143-7

Date Collected: 06/17/21 16:20

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.0		2.0		mg/Kg	☼	06/18/21 17:15	06/21/21 14:22	100
PCB-1221	<2.0		2.0		mg/Kg	☼	06/18/21 17:15	06/21/21 14:22	100
PCB-1232	<2.0		2.0		mg/Kg	☼	06/18/21 17:15	06/21/21 14:22	100
PCB-1242	5.9		2.0		mg/Kg	☼	06/18/21 17:15	06/21/21 14:22	100
PCB-1248	<2.0		2.0		mg/Kg	☼	06/18/21 17:15	06/21/21 14:22	100
PCB-1254	<2.0		2.0		mg/Kg	☼	06/18/21 17:15	06/21/21 14:22	100
PCB-1260	<2.0		2.0		mg/Kg	☼	06/18/21 17:15	06/21/21 14:22	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	84		49 - 129	06/18/21 17:15	06/21/21 14:22	100
<i>DCB Decachlorobiphenyl</i>	104		37 - 121	06/18/21 17:15	06/21/21 14:22	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-014

Lab Sample ID: 500-201143-8

Date Collected: 06/17/21 16:23

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:38	40
PCB-1221	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:38	40
PCB-1232	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:38	40
PCB-1242	1.9		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:38	40
PCB-1248	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:38	40
PCB-1254	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:38	40
PCB-1260	<0.79		0.79		mg/Kg	☼	06/18/21 17:15	06/21/21 14:38	40

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	06/18/21 17:15	06/21/21 14:38	40
DCB Decachlorobiphenyl	91		37 - 121	06/18/21 17:15	06/21/21 14:38	40

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-015

Lab Sample ID: 500-201143-9

Date Collected: 06/17/21 16:25

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<4.0		4.0		mg/Kg	☼	06/18/21 17:15	06/21/21 15:08	200
PCB-1221	<4.0		4.0		mg/Kg	☼	06/18/21 17:15	06/21/21 15:08	200
PCB-1232	<4.0		4.0		mg/Kg	☼	06/18/21 17:15	06/21/21 15:08	200
PCB-1242	5.1		4.0		mg/Kg	☼	06/18/21 17:15	06/21/21 15:08	200
PCB-1248	<4.0		4.0		mg/Kg	☼	06/18/21 17:15	06/21/21 15:08	200
PCB-1254	<4.0		4.0		mg/Kg	☼	06/18/21 17:15	06/21/21 15:08	200
PCB-1260	<4.0		4.0		mg/Kg	☼	06/18/21 17:15	06/21/21 15:08	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	75		49 - 129	06/18/21 17:15	06/21/21 15:08	200
<i>DCB Decachlorobiphenyl</i>	95		37 - 121	06/18/21 17:15	06/21/21 15:08	200

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-016

Lab Sample ID: 500-201143-10

Date Collected: 06/17/21 16:35

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:19	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:19	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:19	20
PCB-1242	2.2		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:19	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:19	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:19	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	89		49 - 129	06/18/21 17:15	06/21/21 12:19	20
<i>DCB Decachlorobiphenyl</i>	93		37 - 121	06/18/21 17:15	06/21/21 12:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-017

Lab Sample ID: 500-201143-11

Date Collected: 06/17/21 16:40

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:34	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:34	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:34	20
PCB-1242	2.0		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:34	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:34	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:34	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 12:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	84		49 - 129	06/18/21 17:15	06/21/21 12:34	20
<i>DCB Decachlorobiphenyl</i>	87		37 - 121	06/18/21 17:15	06/21/21 12:34	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW006S

Lab Sample ID: 500-201143-15

Date Collected: 06/17/21 17:15

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 05:48	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 05:48	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 05:48	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 05:48	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 05:48	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 05:48	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 05:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	06/18/21 17:15	06/19/21 05:48	20
DCB Decachlorobiphenyl	98		37 - 121	06/18/21 17:15	06/19/21 05:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW007N

Lab Sample ID: 500-201143-16

Date Collected: 06/17/21 17:20

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 78.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	06/18/21 17:15	06/21/21 17:44	20
PCB-1221	<0.42		0.42		mg/Kg	☼	06/18/21 17:15	06/21/21 17:44	20
PCB-1232	<0.42		0.42		mg/Kg	☼	06/18/21 17:15	06/21/21 17:44	20
PCB-1242	2.4		0.42		mg/Kg	☼	06/18/21 17:15	06/21/21 17:44	20
PCB-1248	<0.42		0.42		mg/Kg	☼	06/18/21 17:15	06/21/21 17:44	20
PCB-1254	<0.42		0.42		mg/Kg	☼	06/18/21 17:15	06/21/21 17:44	20
PCB-1260	<0.42		0.42		mg/Kg	☼	06/18/21 17:15	06/21/21 17:44	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	99		49 - 129	06/18/21 17:15	06/21/21 17:44	20
DCB Decachlorobiphenyl	78		37 - 121	06/18/21 17:15	06/21/21 17:44	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW008S

Lab Sample ID: 500-201143-17

Date Collected: 06/17/21 17:30

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 06:18	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 06:18	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 06:18	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 06:18	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 06:18	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 06:18	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/18/21 17:15	06/19/21 06:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/18/21 17:15	06/19/21 06:18	20
DCB Decachlorobiphenyl	81		37 - 121	06/18/21 17:15	06/19/21 06:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW009N

Lab Sample ID: 500-201143-18

Date Collected: 06/17/21 17:35

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:39	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:39	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:39	20
PCB-1242	3.3		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:39	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:39	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:39	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		49 - 129	06/18/21 17:15	06/21/21 08:39	20
DCB Decachlorobiphenyl	94		37 - 121	06/18/21 17:15	06/21/21 08:39	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW011N

Lab Sample ID: 500-201143-20

Date Collected: 06/17/21 17:50

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:55	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:55	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:55	20
PCB-1242	3.0		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:55	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:55	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:55	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 08:55	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	103		49 - 129	06/18/21 17:15	06/21/21 08:55	20
DCB Decachlorobiphenyl	102		37 - 121	06/18/21 17:15	06/21/21 08:55	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-004-1

Lab Sample ID: 500-201143-24

Date Collected: 06/18/21 14:45

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 88.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 15:54	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 15:54	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 15:54	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 15:54	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 15:54	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 15:54	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 15:54	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	06/19/21 06:17	06/21/21 15:54	20
DCB Decachlorobiphenyl	107		37 - 121	06/19/21 06:17	06/21/21 15:54	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-006-1

Lab Sample ID: 500-201143-25

Date Collected: 06/18/21 14:55

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 88.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/19/21 06:17	06/21/21 16:10	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/19/21 06:17	06/21/21 16:10	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/19/21 06:17	06/21/21 16:10	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/19/21 06:17	06/21/21 16:10	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/19/21 06:17	06/21/21 16:10	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/19/21 06:17	06/21/21 16:10	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/19/21 06:17	06/21/21 16:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/19/21 06:17	06/21/21 16:10	20
DCB Decachlorobiphenyl	102		37 - 121	06/19/21 06:17	06/21/21 16:10	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW003N-1

Lab Sample ID: 500-201143-26

Date Collected: 06/18/21 15:05

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 86.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	06/19/21 06:17	06/21/21 16:25	20
PCB-1221	<0.36		0.36		mg/Kg	☼	06/19/21 06:17	06/21/21 16:25	20
PCB-1232	1.3		0.36		mg/Kg	☼	06/19/21 06:17	06/21/21 16:25	20
PCB-1242	<0.36		0.36		mg/Kg	☼	06/19/21 06:17	06/21/21 16:25	20
PCB-1248	<0.36		0.36		mg/Kg	☼	06/19/21 06:17	06/21/21 16:25	20
PCB-1254	<0.36		0.36		mg/Kg	☼	06/19/21 06:17	06/21/21 16:25	20
PCB-1260	<0.36		0.36		mg/Kg	☼	06/19/21 06:17	06/21/21 16:25	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/19/21 06:17	06/21/21 16:25	20
DCB Decachlorobiphenyl	97		37 - 121	06/19/21 06:17	06/21/21 16:25	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW005N-1

Lab Sample ID: 500-201143-27

Date Collected: 06/18/21 15:15

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/19/21 06:17	06/21/21 16:41	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/19/21 06:17	06/21/21 16:41	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/19/21 06:17	06/21/21 16:41	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/19/21 06:17	06/21/21 16:41	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/19/21 06:17	06/21/21 16:41	20
PCB-1254	1.6		0.40		mg/Kg	☼	06/19/21 06:17	06/21/21 16:41	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/19/21 06:17	06/21/21 16:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	06/19/21 06:17	06/21/21 16:41	20
DCB Decachlorobiphenyl	82		37 - 121	06/19/21 06:17	06/21/21 16:41	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

GC Semi VOA

Prep Batch: 604988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-1	ED-R1SD-007	Total/NA	Solid	3541	
500-201143-2	ED-R1SD-008	Total/NA	Solid	3541	
500-201143-3	ED-R1SD-009	Total/NA	Solid	3541	
500-201143-4	ED-R1SD-010	Total/NA	Solid	3541	
500-201143-5	ED-R1SD-011	Total/NA	Solid	3541	
500-201143-6	ED-R1SD-012	Total/NA	Solid	3541	
500-201143-7	ED-R1SD-013	Total/NA	Solid	3541	
500-201143-8	ED-R1SD-014	Total/NA	Solid	3541	
500-201143-9	ED-R1SD-015	Total/NA	Solid	3541	
500-201143-10	ED-R1SD-016	Total/NA	Solid	3541	
500-201143-11	ED-R1SD-017	Total/NA	Solid	3541	
500-201143-15	ED-R1SD-SW006S	Total/NA	Solid	3541	
500-201143-16	ED-R1SD-SW007N	Total/NA	Solid	3541	
500-201143-17	ED-R1SD-SW008S	Total/NA	Solid	3541	
500-201143-18	ED-R1SD-SW009N	Total/NA	Solid	3541	
500-201143-20	ED-R1SD-SW011N	Total/NA	Solid	3541	
MB 500-604988/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-604988/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201143-1 MS	ED-R1SD-007	Total/NA	Solid	3541	
500-201143-1 MSD	ED-R1SD-007	Total/NA	Solid	3541	

Analysis Batch: 605033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-15	ED-R1SD-SW006S	Total/NA	Solid	8082A	604988
500-201143-17	ED-R1SD-SW008S	Total/NA	Solid	8082A	604988
MB 500-604988/1-A	Method Blank	Total/NA	Solid	8082A	604988
LCS 500-604988/2-A	Lab Control Sample	Total/NA	Solid	8082A	604988

Prep Batch: 605043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-24	ED-R1SD-004-1	Total/NA	Solid	3541	
500-201143-25	ED-R1SD-006-1	Total/NA	Solid	3541	
500-201143-26	ED-R1SD-SW003N-1	Total/NA	Solid	3541	
500-201143-27	ED-R1SD-SW005N-1	Total/NA	Solid	3541	
MB 500-605043/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605043/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 605170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-1	ED-R1SD-007	Total/NA	Solid	8082A	604988
500-201143-2	ED-R1SD-008	Total/NA	Solid	8082A	604988
500-201143-3	ED-R1SD-009	Total/NA	Solid	8082A	604988
500-201143-4	ED-R1SD-010	Total/NA	Solid	8082A	604988
500-201143-5	ED-R1SD-011	Total/NA	Solid	8082A	604988
500-201143-6	ED-R1SD-012	Total/NA	Solid	8082A	604988
500-201143-7	ED-R1SD-013	Total/NA	Solid	8082A	604988
500-201143-8	ED-R1SD-014	Total/NA	Solid	8082A	604988
500-201143-9	ED-R1SD-015	Total/NA	Solid	8082A	604988
500-201143-10	ED-R1SD-016	Total/NA	Solid	8082A	604988
500-201143-11	ED-R1SD-017	Total/NA	Solid	8082A	604988
500-201143-16	ED-R1SD-SW007N	Total/NA	Solid	8082A	604988

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

GC Semi VOA (Continued)

Analysis Batch: 605170 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-18	ED-R1SD-SW009N	Total/NA	Solid	8082A	604988
500-201143-20	ED-R1SD-SW011N	Total/NA	Solid	8082A	604988
500-201143-24	ED-R1SD-004-1	Total/NA	Solid	8082A	605043
500-201143-25	ED-R1SD-006-1	Total/NA	Solid	8082A	605043
500-201143-26	ED-R1SD-SW003N-1	Total/NA	Solid	8082A	605043
500-201143-27	ED-R1SD-SW005N-1	Total/NA	Solid	8082A	605043
MB 500-605043/1-A	Method Blank	Total/NA	Solid	8082A	605043
LCS 500-605043/2-A	Lab Control Sample	Total/NA	Solid	8082A	605043
500-201143-1 MS	ED-R1SD-007	Total/NA	Solid	8082A	604988
500-201143-1 MSD	ED-R1SD-007	Total/NA	Solid	8082A	604988

General Chemistry

Analysis Batch: 605128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-1	ED-R1SD-007	Total/NA	Solid	Moisture	
500-201143-2	ED-R1SD-008	Total/NA	Solid	Moisture	
500-201143-3	ED-R1SD-009	Total/NA	Solid	Moisture	
500-201143-4	ED-R1SD-010	Total/NA	Solid	Moisture	
500-201143-5	ED-R1SD-011	Total/NA	Solid	Moisture	
500-201143-6	ED-R1SD-012	Total/NA	Solid	Moisture	
500-201143-7	ED-R1SD-013	Total/NA	Solid	Moisture	
500-201143-8	ED-R1SD-014	Total/NA	Solid	Moisture	
500-201143-9	ED-R1SD-015	Total/NA	Solid	Moisture	
500-201143-10	ED-R1SD-016	Total/NA	Solid	Moisture	
500-201143-11	ED-R1SD-017	Total/NA	Solid	Moisture	
500-201143-15	ED-R1SD-SW006S	Total/NA	Solid	Moisture	
500-201143-16	ED-R1SD-SW007N	Total/NA	Solid	Moisture	
500-201143-17	ED-R1SD-SW008S	Total/NA	Solid	Moisture	
500-201143-18	ED-R1SD-SW009N	Total/NA	Solid	Moisture	
500-201143-20	ED-R1SD-SW011N	Total/NA	Solid	Moisture	
500-201143-2 DU	ED-R1SD-008	Total/NA	Solid	Moisture	

Analysis Batch: 605129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-24	ED-R1SD-004-1	Total/NA	Solid	Moisture	
500-201143-25	ED-R1SD-006-1	Total/NA	Solid	Moisture	
500-201143-26	ED-R1SD-SW003N-1	Total/NA	Solid	Moisture	
500-201143-27	ED-R1SD-SW005N-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-201143-1	ED-R1SD-007	122	110
500-201143-1 MS	ED-R1SD-007	99	102
500-201143-1 MSD	ED-R1SD-007	85	95
500-201143-2	ED-R1SD-008	94	99
500-201143-3	ED-R1SD-009	140 S1+	163 S1+
500-201143-4	ED-R1SD-010	87	91
500-201143-5	ED-R1SD-011	102	108
500-201143-6	ED-R1SD-012	93	107
500-201143-7	ED-R1SD-013	84	104
500-201143-8	ED-R1SD-014	80	91
500-201143-9	ED-R1SD-015	75	95
500-201143-10	ED-R1SD-016	89	93
500-201143-11	ED-R1SD-017	84	87
500-201143-15	ED-R1SD-SW006S	77	98
500-201143-16	ED-R1SD-SW007N	99	78
500-201143-17	ED-R1SD-SW008S	71	81
500-201143-18	ED-R1SD-SW009N	95	94
500-201143-20	ED-R1SD-SW011N	103	102
500-201143-24	ED-R1SD-004-1	77	107
500-201143-25	ED-R1SD-006-1	76	102
500-201143-26	ED-R1SD-SW003N-1	76	97
500-201143-27	ED-R1SD-SW005N-1	80	82
LCS 500-604988/2-A	Lab Control Sample	95	91
MB 500-604988/1-A	Method Blank	106	98

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-604988/1-A
Matrix: Solid
Analysis Batch: 605033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604988

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1221	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1232	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1242	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1248	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1254	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1260	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	106		49 - 129	06/18/21 17:15	06/19/21 01:09	20
DCB Decachlorobiphenyl	98		37 - 121	06/18/21 17:15	06/19/21 01:09	20

Lab Sample ID: LCS 500-604988/2-A
Matrix: Solid
Analysis Batch: 605033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604988

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.60		mg/Kg		96	57 - 120
PCB-1260	1.67	1.60		mg/Kg		96	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	95		49 - 129
DCB Decachlorobiphenyl	91		37 - 121

Lab Sample ID: 500-201143-1 MS
Matrix: Solid
Analysis Batch: 605170

Client Sample ID: ED-R1SD-007
Prep Type: Total/NA
Prep Batch: 604988

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
PCB-1016	<0.40	F1 F2	1.96	5.94	F1	mg/Kg	☼	303	57 - 120
PCB-1260	<0.40		1.96	2.15		mg/Kg	☼	110	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	99		49 - 129
DCB Decachlorobiphenyl	102		37 - 121

Lab Sample ID: 500-201143-1 MSD
Matrix: Solid
Analysis Batch: 605170

Client Sample ID: ED-R1SD-007
Prep Type: Total/NA
Prep Batch: 604988

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
	Result	Qualifier		Result	Qualifier					RPD	Limit
PCB-1016	<0.40	F1 F2	1.99	3.87	F1 F2	mg/Kg	☼	195	57 - 120	42	30
PCB-1260	<0.40		1.99	1.94		mg/Kg	☼	98	61 - 125	10	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	85		49 - 129
DCB Decachlorobiphenyl	95		37 - 121

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QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 500-605043/1-A
Matrix: Solid
Analysis Batch: 605170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605043

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1221	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1232	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1242	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1248	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1254	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1260	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20

Lab Sample ID: LCS 500-605043/2-A
Matrix: Solid
Analysis Batch: 605170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605043

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1260	1.67	1.65		mg/Kg		99	61 - 125

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-007

Lab Sample ID: 500-201143-1

Date Collected: 06/17/21 15:35

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-007

Lab Sample ID: 500-201143-1

Date Collected: 06/17/21 15:35

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 09:10	EF	TAL CHI

Client Sample ID: ED-R1SD-008

Lab Sample ID: 500-201143-2

Date Collected: 06/17/21 15:45

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-008

Lab Sample ID: 500-201143-2

Date Collected: 06/17/21 15:45

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 09:56	EF	TAL CHI

Client Sample ID: ED-R1SD-009

Lab Sample ID: 500-201143-3

Date Collected: 06/17/21 15:50

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-009

Lab Sample ID: 500-201143-3

Date Collected: 06/17/21 15:50

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		40	605170	06/21/21 13:51	EF	TAL CHI

Client Sample ID: ED-R1SD-010

Lab Sample ID: 500-201143-4

Date Collected: 06/17/21 15:55

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

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Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-010

Lab Sample ID: 500-201143-4

Date Collected: 06/17/21 15:55

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		40	605170	06/21/21 14:53	EF	TAL CHI

Client Sample ID: ED-R1SD-011

Lab Sample ID: 500-201143-5

Date Collected: 06/17/21 16:00

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-011

Lab Sample ID: 500-201143-5

Date Collected: 06/17/21 16:00

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		40	605170	06/21/21 14:07	EF	TAL CHI

Client Sample ID: ED-R1SD-012

Lab Sample ID: 500-201143-6

Date Collected: 06/17/21 16:10

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-012

Lab Sample ID: 500-201143-6

Date Collected: 06/17/21 16:10

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 11:01	EF	TAL CHI

Client Sample ID: ED-R1SD-013

Lab Sample ID: 500-201143-7

Date Collected: 06/17/21 16:20

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-013

Lab Sample ID: 500-201143-7

Date Collected: 06/17/21 16:20

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		100	605170	06/21/21 14:22	EF	TAL CHI

Client Sample ID: ED-R1SD-014

Lab Sample ID: 500-201143-8

Date Collected: 06/17/21 16:23

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-014

Lab Sample ID: 500-201143-8

Date Collected: 06/17/21 16:23

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		40	605170	06/21/21 14:38	EF	TAL CHI

Client Sample ID: ED-R1SD-015

Lab Sample ID: 500-201143-9

Date Collected: 06/17/21 16:25

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-015

Lab Sample ID: 500-201143-9

Date Collected: 06/17/21 16:25

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		200	605170	06/21/21 15:08	EF	TAL CHI

Client Sample ID: ED-R1SD-016

Lab Sample ID: 500-201143-10

Date Collected: 06/17/21 16:35

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-016

Lab Sample ID: 500-201143-10

Date Collected: 06/17/21 16:35

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 12:19	EF	TAL CHI

Client Sample ID: ED-R1SD-017

Lab Sample ID: 500-201143-11

Date Collected: 06/17/21 16:40

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-017

Lab Sample ID: 500-201143-11

Date Collected: 06/17/21 16:40

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 12:34	EF	TAL CHI

Client Sample ID: ED-R1SD-SW006S

Lab Sample ID: 500-201143-15

Date Collected: 06/17/21 17:15

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW006S

Lab Sample ID: 500-201143-15

Date Collected: 06/17/21 17:15

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605033	06/19/21 05:48	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW007N

Lab Sample ID: 500-201143-16

Date Collected: 06/17/21 17:20

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW007N

Lab Sample ID: 500-201143-16

Date Collected: 06/17/21 17:20

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 17:44	EF	TAL CHI

Client Sample ID: ED-R1SD-SW008S

Lab Sample ID: 500-201143-17

Date Collected: 06/17/21 17:30

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW008S

Lab Sample ID: 500-201143-17

Date Collected: 06/17/21 17:30

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605033	06/19/21 06:18	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW009N

Lab Sample ID: 500-201143-18

Date Collected: 06/17/21 17:35

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW009N

Lab Sample ID: 500-201143-18

Date Collected: 06/17/21 17:35

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 08:39	EF	TAL CHI

Client Sample ID: ED-R1SD-SW011N

Lab Sample ID: 500-201143-20

Date Collected: 06/17/21 17:50

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW011N

Lab Sample ID: 500-201143-20

Date Collected: 06/17/21 17:50

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 08:55	EF	TAL CHI

Client Sample ID: ED-R1SD-004-1

Lab Sample ID: 500-201143-24

Date Collected: 06/18/21 14:45

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605129	06/21/21 06:47	LWN	TAL CHI

Client Sample ID: ED-R1SD-004-1

Lab Sample ID: 500-201143-24

Date Collected: 06/18/21 14:45

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605043	06/19/21 06:17	DAK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 15:54	EF	TAL CHI

Client Sample ID: ED-R1SD-006-1

Lab Sample ID: 500-201143-25

Date Collected: 06/18/21 14:55

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605129	06/21/21 06:47	LWN	TAL CHI

Client Sample ID: ED-R1SD-006-1

Lab Sample ID: 500-201143-25

Date Collected: 06/18/21 14:55

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605043	06/19/21 06:17	DAK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 16:10	EF	TAL CHI

Client Sample ID: ED-R1SD-SW003N-1

Lab Sample ID: 500-201143-26

Date Collected: 06/18/21 15:05

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605129	06/21/21 06:47	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Client Sample ID: ED-R1SD-SW003N-1

Lab Sample ID: 500-201143-26

Date Collected: 06/18/21 15:05

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605043	06/19/21 06:17	DAK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 16:25	EF	TAL CHI

Client Sample ID: ED-R1SD-SW005N-1

Lab Sample ID: 500-201143-27

Date Collected: 06/18/21 15:15

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605129	06/21/21 06:47	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW005N-1

Lab Sample ID: 500-201143-27

Date Collected: 06/18/21 15:15

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 82.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605043	06/19/21 06:17	DAK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 16:41	EF	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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Chain of Custody Record

Client Information		Sampler: <u>Garrett Welch</u>		Lab PM: <u>Kintz Robin M</u>		Carrier Tracking No(s):		COC No: <u>500-92290-41114 3</u>					
Client Contact: <u>Jenny Rickford O'Brien</u>		Phone: <u>865-440-1655</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin: <u>IN</u>		Page <u>3 of 5</u> <u>1 of 3</u>					
Company: <u>Civil & Environmental Consultants Inc</u>		PWSID:		Analysis Requested						Job #: <u>500-201143</u>			
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested: <u>24 HOUR RUSH</u>		 500-201143 COC						Preservation Codes			
City: <u>Knoxville</u>		TAT Requested (days):								A HCL		M Hexane	
State Zip: <u>TN 37920</u>		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No								B NaOH		N None	
Phone: <u>865-340-4914(Tel)</u>		PO #:								C Zn Acetate		O AsNaO2	
Email: <u>jrickfordobrien@cecinc.com</u>		Purchase Order not required								D Nitric Acid		P Na2O4S	
Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>		Project #: <u>50019033</u>		E NaHSO4		Q Na2SO3		F MeOH		R Na2S2O3			
Site: <u>Arconic - Elliott Ditch</u>		SSOW#:		G Amchlor		S H2SO4		H Ascorbic Acid		T TSP Dodecahydrate			
				I Ice		U Acetone		J - DI Water		V MCAA			
				K EDTA		W pH 4-5		L EDA		Z other (specify)			
				Other:									

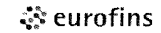
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs		Total Number of Containers	Special Instructions/Note
							8082A - PCBs	8082A - Default List		
			Preservation Code:		X	X	N	N		
1 ED-RISD-007	6/17/21	1535	C	S	X	X			1	PRIORITIZE
2 ED-RISD-008	6/17/21	1545	C	S	X	X			1	
3 ED-RISD-009	6/17/21	1550	C	S	X	X			1	
4 ED-RISD-010	6/17/21	1555	C	S	X	X			1	
5 ED-RISD-011	6/17/21	1600	C	S	X	X			1	
6 ED-RISD-012	6/17/21	1610	C	S	X	X			1	
7 ED-RISD-013	6/17/21	1620	C	S	X	X			1	
8 ED-RISD-014	6/17/21	1623	C	S	X	X			1	
9 ED-RISD-015	6/17/21	1625	C	S	X	X			1	
10 ED-RISD-016	6/17/21	1635	C	S	X	X			1	
11 ED-RISD-017	6/17/21	1640	C	S	X	X			1	

Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> IV Other (specify)				Special Instructions/QC Requirements			
Empty Kit Relinquished by:		Date		Time		Method of Shipment:	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/18/21 1525</u>		Company: <u>ETA</u>		Received by: <u>[Signature]</u> Date/Time: <u>6/18/21 1525</u> Company: <u>ETA</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/18/21 1645</u>		Company: <u>ETA</u>		Received by: <u>Stephanie Hernandez</u> Date/Time: <u>6/18/21 1645</u> Company: <u>ETA-CH</u>	
Relinquished by:		Date/Time:		Company:		Received by: Date/Time: Company:	
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>4.9-4.6</u>			

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: <u>Garrett Welch</u>		Lab PM: <u>Kintz Robin M</u>		Carrier Tracking No(s):		COC No: <u>500-92290-41114 4</u>																							
Client Contact: <u>Jenny Rickford O'Brien</u>		Phone: <u>865-440-1655</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin: <u>IN</u>		Page: <u>4 of 3</u> Page 4 of 3 <u>2 of 3</u>																							
Company: <u>Civil & Environmental Consultants Inc</u>		PWSID:		Analysis Requested						Job #: <u>500-201143</u>																					
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested: <u>24 HOUR RUSH</u>		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>8092A - PCBs</td> <td>8092A - Default List</td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	8092A - Default List																	Preservation Codes	
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	8092A - Default List																												
City: <u>Knoxville</u>		TAT Requested (days)								A HCL		M Hexane																			
State Zip: <u>TN 37920</u>		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No								B NaOH		N None																			
Phone: <u>865-340-4914(Tel)</u>		PO #		C Zn Acetate		O AsNaO2																									
Email: <u>jrickfordobrien@cecinc.com</u>		Purchase Order not required		D - Nitric Acid		P Na2O4S																									
Project Name: <u>Arconic PCB Rush Project Lafayette, IN</u>		WO #		E NaHSO4		Q Na2SO3																									
Site: <u>Arconic - Elliott Ditch</u>		Project #: <u>50019033</u>		F MeOH		R Na2S2O3																									
		SSOW#:		G Amchlor		S H2SO4																									
				H Ascorbic Acid		T TSP Dodecahydrate																									
				I Ice		U Acetone																									
				J DI Water		V MCAA																									
				K EDTA		W pH 4-5																									
				L - EDA		Z other (specify)																									
										Other:																					

12
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19
20
21
22

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	8092A - Default List	Total Number of containers	Special Instructions/Note
							N	N		
ED-RISD-018	6/17/21	1645	C	S	X	X			1	PRIORITIZE
ED-RISD-019	6/17/21	1650	C	S	X	X			1	PRIORITIZE
ED-RISD-020	6/17/21	1700	C	S	X	X			1	PRIORITIZE
ED-RISD-SW006S	6/17/21	1715	C	S	X	X			1	HOLD
ED-RISD-SW007N	6/17/21	1720	C	S	X	X			1	HOLD
ED-RISD-SW008S	6/17/21	1730	C	S	X	X			1	HOLD
ED-RISD-SW009N	6/17/21	1735	C	S	X	X			1	HOLD
ED-RISD-SW010S	6/17/21	1740	C	S	X	X			1	HOLD
ED-RISD-SW011N	6/17/21	1750	C	S	X	X			1	PRIORITIZE HOLD
ED-RISD-SW012S	6/17/21	1800	C	S	X	X			1	HOLD
ED-RISD-SW013N	6/17/21	1810	C	S	X	X			1	HOLD

Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
--	--	--	--	--	--	--	--

Deliverable Requested <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Other (specify)	Special Instructions/QC Requirements <u>Hold sidewalk samples until further instruction</u>
---	--

Empty Kit Relinquished by	Date	Time	Method of Shipment:
Relinquished by: <u>[Signature]</u>	Date/Time: <u>6/18/21 1525</u>	Company: <u>ETA</u>	Received by: <u>[Signature]</u> Date/Time: <u>6/18/21 1525</u> Company: <u>ETA</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>6/18/21 1645</u>	Company: <u>ETA</u>	Received by: <u>Stephanie Hernandez</u> Date/Time: <u>6/18/21 1645</u> Company: <u>ETA-CH1</u>
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:

Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: <u>4974.6</u>
--	-----------------	---

Chain of Custody Record

Client Information			Sampler: <u>Garrett Welch</u>	Lab PM: <u>Kintz Robin M</u>	Carrier Tracking No(s):	COC No: <u>500-92290-41114 5</u>			
Client Contact: <u>Jenny Rickford O'Brien</u>			Phone: <u>865-440-1655</u>	E-Mail: <u>Robin.Kintz@Eurofinset.com</u>	State of Origin: <u>IN</u>	Page: <u>5 of 6</u> <u>3 of 3</u>			
Company: <u>Civil & Environmental Consultants Inc</u>			PWSID:	Analysis Requested					
Address: <u>2704 Cherokee Farm Way Suite 101</u>			Due Date Requested: <u>24 Hour RUSH</u>	Job #: <u>GAW 6/17/21 500-201143</u> Preservation Codes: A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K - EDTA W pH 4-5 L EDA Z other (specify) Other:					
City: <u>Knoxville</u>			TAT Requested (days):						
State Zip: <u>TN 37920</u>			Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No						
Phone: <u>865-340-4914(Tel)</u>			PO #: <u>Purchase Order not required</u>						
Email: <u>jrickfordobrien@cecinc.com</u>			WO #:						
Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>			Project #: <u>50019033</u>						
Site: <u>ARCONIC - ELLIOTT DITCH</u>			SSOW#:						
Sample Identification			Field Filtered Sample (Yes or No)				Total Number of Containers		
	Sample Date	Sample Time	Sample Type (C=comp, G=grab)				Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	8082A - PCBs	8082A - Default List
								Special Instructions/Note.	
					Preservation Code:				
23	ED-RISD-EB1	6/17/21 1830	G	W	X	X	2		
24	ED-RISD-004-1	6/18/21 1445	C	S	X		1	Prioritize	
25	ED-RISD-006-1	6/18/21 1455	C	S	X		1	Prioritize	
26	ED-RISD-SW003A-1	6/18/21 1505	C	S	X		1	Prioritize	
27	ED-RISD-SW005A-1	6/18/21 1515	C	S	X		1	Prioritize	
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)			Special Instructions/QC Requirements						
Empty Kit Relinquished by			Date	Time	Method of Shipment:				
Relinquished by: <u>[Signature]</u>			Date/Time: <u>6/18/21 1525</u>	Company: <u>ETA</u>	Received by: <u>[Signature]</u>	Date/Time: <u>6/18/21 1525</u>	Company: <u>ETA</u>		
Relinquished by: <u>[Signature]</u>			Date/Time: <u>6/18/21 1645</u>	Company: <u>ETA</u>	Received by: <u>Stephanie Hemond</u>	Date/Time: <u>6/18/21 1645</u>	Company: <u>ETA-CHI</u>		
Relinquished by:			Date/Time:	Company:	Received by:	Date/Time:	Company:		
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No		Cooler Temperature(s) °C and Other Remarks				

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201143-1

Login Number: 201143

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201143-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 1

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/30/2021 1:00:28 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Receipt Checklists	17



Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Job ID: 500-201143-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201143-2

Comments

No additional comments.

Receipt

The samples were received on 6/18/2021 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

Revised Report

The report was revised to update the sample ID for ED-R1SD-EB1 to ED-R1SD-EB2 per client: ED-R1SD-EB2 (500-201143-23).

GC Semi VOA

Method 8082A: The following sample was diluted to bring the concentration of target analytes within the calibration range: ED-R1SD-EB2 (500-201143-23). Elevated reporting limits (RLs) are provided.

Method 8082A: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-605633 and analytical batch 500-605842 recovered outside control limits for the following analytes: PCB-1260.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Client Sample ID: ED-R1SD-EB2

Lab Sample ID: 500-201143-23

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201143-23	ED-R1SD-EB2	Water	06/17/21 18:30	06/18/21 16:45	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Client Sample ID: ED-R1SD-EB2

Lab Sample ID: 500-201143-23

Date Collected: 06/17/21 18:30

Matrix: Water

Date Received: 06/18/21 16:45

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00039		0.00039		mg/L		06/23/21 07:16	06/24/21 05:18	1
PCB-1221	<0.00039		0.00039		mg/L		06/23/21 07:16	06/24/21 05:18	1
PCB-1232	<0.00039		0.00039		mg/L		06/23/21 07:16	06/24/21 05:18	1
PCB-1242	<0.00039		0.00039		mg/L		06/23/21 07:16	06/24/21 05:18	1
PCB-1248	<0.00039		0.00039		mg/L		06/23/21 07:16	06/24/21 05:18	1
PCB-1254	<0.00039		0.00039		mg/L		06/23/21 07:16	06/24/21 05:18	1
PCB-1260	<0.00039	*1	0.00039		mg/L		06/23/21 07:16	06/24/21 05:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	43		30 - 120	06/23/21 07:16	06/24/21 05:18	1
DCB Decachlorobiphenyl	38		30 - 140	06/23/21 07:16	06/24/21 05:18	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

GC Semi VOA

Prep Batch: 605633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-23	ED-R1SD-EB2	Total/NA	Water	3510C	
MB 500-605633/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-605633/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-605633/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 605842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-23	ED-R1SD-EB2	Total/NA	Water	8082A	605633
MB 500-605633/1-A	Method Blank	Total/NA	Water	8082A	605633
LCS 500-605633/4-A	Lab Control Sample	Total/NA	Water	8082A	605633
LCSD 500-605633/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	605633

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201143-23	ED-R1SD-EB2	43	38
LCS 500-605633/4-A	Lab Control Sample	52	91
LCSD 500-605633/5-A	Lab Control Sample Dup	57	121
MB 500-605633/1-A	Method Blank	57	117

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-605633/1-A
Matrix: Water
Analysis Batch: 605842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605633

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1221	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1232	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1242	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1248	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1254	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1260	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		30 - 120	06/23/21 07:16	06/24/21 01:00	1
DCB Decachlorobiphenyl	117		30 - 140	06/23/21 07:16	06/24/21 01:00	1

Lab Sample ID: LCS 500-605633/4-A
Matrix: Water
Analysis Batch: 605842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605633

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00345		mg/L		86	56 - 120
PCB-1260	0.00400	0.00398		mg/L		100	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	52		30 - 120
DCB Decachlorobiphenyl	91		30 - 140

Lab Sample ID: LCSD 500-605633/5-A
Matrix: Water
Analysis Batch: 605842

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 605633

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00417		mg/L		104	56 - 120	19	20
PCB-1260	0.00400	0.00500	*1	mg/L		125	53 - 137	23	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	57		30 - 120
DCB Decachlorobiphenyl	121		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Client Sample ID: ED-R1SD-EB2

Lab Sample ID: 500-201143-23

Date Collected: 06/17/21 18:30

Matrix: Water

Date Received: 06/18/21 16:45

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			605633	06/23/21 07:16	SB	TAL CHI
Total/NA	Analysis	8082A		1	605842	06/24/21 05:18	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Chain of Custody Record

Client Information		Sampler: <i>Garrett Welch</i>		Lab PM: <i>Kintz Robin M</i>		Carrier Tracking No(s):		COC No: <i>500-92290-41114 3</i>		
Client Contact: <i>Jenny Rickford O'Brien</i>		Phone: <i>865-440-1655</i>		E-Mail: <i>Robin.Kintz@Eurofinset.com</i>		State of Origin: <i>IN</i>		Page <i>3</i> of <i>5</i> <i>1</i> of <i>3</i>		
Company: <i>Civil & Environmental Consultants Inc</i>		PWSID:		Analysis Requested  500-201143 COC				Job #: <i>500-201143</i>		
Address: <i>2704 Cherokee Farm Way Suite 101</i>		Due Date Requested: <i>24 HOUR RUSH</i>						Preservation Codes:		
City: <i>Knoxville</i>		TAT Requested (days):		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs 8082A - Default List		Total Number of Containers		A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J - DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)		
State/Zip: <i>TN 37920</i>		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No						Special Instructions/Note <i>PRIORITIZE</i>		
Phone: <i>865-340-4914(Tel)</i>		PO #: <i>Purchase Order not required</i>								
Email: <i>jrckfordobrien@cecinc.com</i>		WO #:								
Project Name: <i>Arconic PCB Rush Project - Lafayette IN</i>		Project #: <i>50019033</i>		Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:				
Site: <i>Arconic - Elliott Ditch</i>		SSOW#:								
<i>1</i>	<i>ED-RISD-007</i>	<i>6/17/21</i>	<i>1535</i>	<i>C</i>	<i>S</i>	<i>X</i>	<i>N</i>	<i>N</i>	<i>1</i>	
<i>2</i>	<i>ED-RISD-008</i>	<i>6/17/21</i>	<i>1545</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>3</i>	<i>ED-RISD-009</i>	<i>6/17/21</i>	<i>1550</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>4</i>	<i>ED-RISD-010</i>	<i>6/17/21</i>	<i>1555</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>5</i>	<i>ED-RISD-011</i>	<i>6/17/21</i>	<i>1600</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>6</i>	<i>ED-RISD-012</i>	<i>6/17/21</i>	<i>1610</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>7</i>	<i>ED-RISD-013</i>	<i>6/17/21</i>	<i>1620</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>8</i>	<i>ED-RISD-014</i>	<i>6/17/21</i>	<i>1623</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>9</i>	<i>ED-RISD-015</i>	<i>6/17/21</i>	<i>1625</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>10</i>	<i>ED-RISD-016</i>	<i>6/17/21</i>	<i>1635</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
<i>11</i>	<i>ED-RISD-017</i>	<i>6/17/21</i>	<i>1640</i>	<i>C</i>	<i>S</i>	<i>X</i>			<i>1</i>	
Possible Hazard Identification: <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)				Special Instructions/QC Requirements						
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:				
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/18/21 1525</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: <i>6/18/21 1525</i>		Company: <i>ETA</i>
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/18/21 1545</i>		Company: <i>ETA</i>		Received by: <i>Stephanie Hernandez</i>		Date/Time: <i>6/18/21 1645</i>		Company: <i>ETA-CH</i>
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>4.9→4.6</i>						

Chain of Custody Record

Client Information Client Contact: Jenny Rickford O'Brien Company: Civil & Environmental Consultants Inc Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State Zip: TN 37920 Phone: 865-340-4914(Tel) Email: jrnickfordobrien@cecinc.com Project Name: Arconic PCB Rush Project Lafayette, IN Site: <u>Arconic - Elliott Ditch</u>		Sampler: <u>Garrett Welch</u> Phone: <u>865-440-1655</u>	Lab PM: Kintz Robin M E-Mail: Robin.Kintz@Eurofinset.com	Carrier Tracking No(s): State of Origin: <u>IN</u>	COC No: 500-92290-41114 4 Page: <u>4 of 3</u> Job #: <u>500-201143</u>	
Due Date Requested: <u>24 HOUR Rush</u>		Analysis Requested			Preservation Codes: A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L -EDA Z other (specify) Other:	
Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No		PO #: Purchase Order not required	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No)			Total Number of Containers
TAT Requested (days)		WO #:	8082A - PCBs	8082A - Default List		
Project #: 50019033		SSOW#:		Special Instructions/Note		
Sample Identification		Sample Date	Sample Time			
12	ED-RISD-018	6/17/21	1645	C	S	1 PRIORITYZE
13	ED-RISD-019	6/17/21	1650	C	S	1 PRIORITYZE
14	ED-RISD-020	6/17/21	1700	C	S	1 PRIORITYZE
15	ED-RISD-SW006S	6/17/21	1715	C	S	1 - HOLD
16	ED-RISD-SW007N	6/17/21	1720	C	S	1 - HOLD
17	ED-RISD-SW008S	6/17/21	1730	C	S	1 - HOLD
18	ED-RISD-SW009N	6/17/21	1735	C	S	1 - HOLD
19	ED-RISD-SW010S	6/17/21	1740	C	S	1 - HOLD
20	ED-RISD-SW011N	6/17/21	1750	C	S	1 PRIORITYZE HOLD
21	ED-RISD-SW012S	6/17/21	1800	C	S	1 HOLD
22	ED-RISD-SW013N	6/17/21	1810	C	S	1 HOLD

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Chain of Custody Record

Client Information			Sampler <i>Garrett Welch</i>	Lab PM. Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92290-41114 5						
Client Contact: Jenny Rickford O'Brien			Phone <i>865-440-1655</i>	E-Mail Robin.Kintz@Eurofinset.com	State of Origin: <i>IN</i>	Page: <i>5 of 5 3 of 3</i>						
Company: Civil & Environmental Consultants Inc			PWSID	Analysis Requested								
Address 2704 Cherokee Farm Way Suite 101			Due Date Requested <i>24 Hour RUSH</i>	Job # <i>GAW 6/17/21 500-201143</i> Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K - EDTA W pH 4-5 L EDA Z other (specify) Other:								
City Knoxville			TAT Requested (days)									
State Zip TN 37920			Compliance Project. Δ Yes Δ No									
Phone: 865-340-4914(Tel)			PO # Purchase Order not required									
Email jrickfordobrien@cecinc.com			WO #									
Project Name: Arconic PCB Rush Project - Lafayette IN			Project #: 50019033	Field Filtered Sample (Yes or No) Perform M/MS/SD (Yes or No) 8082A - PCBs 8082A - Default List								
Site: <i>ARCONIC - ELLIOTT DITCH</i>			SSOW#									
Sample Identification			Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform M/MS/SD (Yes or No)	8082A - PCBs	8082A - Default List	Total Number of Containers	Special Instructions/Note.
							X	X	N	N	2	
<i>23</i> ED-RISD-EB1			6/17/21	1830	G	W						
<i>24</i> ED-RISD-004-1			6/18/21	1445	C	S					1	Prioritize
<i>25</i> ED-RISD-006-1			6/18/21	1455	C	S					1	Prioritize
<i>26</i> ED-RISD-SW003A-1			6/18/21	1505	C	S					1	Prioritize
<i>27</i> ED-RISD-SW005N-1			6/18/21	1515	C	S					1	Prioritize
Possible Hazard Identification			<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)							<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by			Date	Time	Method of Shipment:							
Relinquished by: <i>[Signature]</i>			Date/Time: <i>6/18/21 1525</i>	Company: ETA	Received by: <i>[Signature]</i>			Date/Time: <i>6/18/21 1525</i>	Company: ETA			
Relinquished by: <i>[Signature]</i>			Date/Time: <i>6/18/21 1645</i>	Company: ETA	Received by: <i>Stephanie Hemond</i>			Date/Time: <i>6/18/21 1645</i>	Company: ETA-CHI			
Relinquished by:			Date/Time:	Company:	Received by:			Date/Time:	Company:			
Custody Seals Intact			Custody Seal No			Cooler Temperature(s) °C and Other Remarks						
Δ Yes Δ No												

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201143-2

Login Number: 201143

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201143-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

6/22/2021 9:59:59 AM

Diana Mockler, Project Manager I
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Designee for

Robin Kintz, Project Manager II
(708)534-5200

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Job ID: 500-201143-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201143-3

Comments

No additional comments.

Receipt

The samples were received on 6/18/2021 4:45 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

GC Semi VOA

Method 8082A: The following samples were diluted to bring the concentration of target analytes within the calibration range: ED-R1SD-018 (500-201143-12), ED-R1SD-019 (500-201143-13), ED-R1SD-020 (500-201143-14), ED-R1SD-SW010S (500-201143-19), ED-R1SD-SW012S (500-201143-21) and ED-R1SD-SW013N (500-201143-22). Elevated reporting limits (RLs) are provided.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: ED-R1SD-018 (500-201143-12), ED-R1SD-019 (500-201143-13), ED-R1SD-020 (500-201143-14), ED-R1SD-SW010S (500-201143-19), ED-R1SD-SW012S (500-201143-21) and ED-R1SD-SW013N (500-201143-22).

Method 8082A: The continuing calibration verification (CCVIS) 500-605033/5 was below the method criteria for DCB Decachlorobiphenyl and PCB-1260 on the primary column. The secondary column recovered within control limits; therefore, the data has been reported. (CCVIS 500-605033/2)

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-018 (500-201143-12), ED-R1SD-019 (500-201143-13), ED-R1SD-020 (500-201143-14), ED-R1SD-SW012S (500-201143-21), ED-R1SD-SW013N (500-201143-22), (500-201143-A-1-A), (500-201143-A-1-B MS), (500-201143-A-1-C MSD), (500-201143-A-21-B MS) and (500-201143-A-21-C MSD). The reagent lot number used was: Z07G073.

Method 8082A: The method blank (MB) was slightly outside of the control limits for DCB Decachlorobiphenyl for preparation batch 500-605043 and analytical batch 500-605170. The MB did not contain any target analytes; therefore the data has been reported. (MB 500-605043/1-A)

Method 8082A: Surrogate recovery for the following sample was outside control limits: ED-R1SD-SW012S (500-201143-21). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The continuing calibration verification (CCVIS) 500-605170 was below the method criteria for PCB-1260 on the primary column. The secondary column recovered within control limits; therefore, the data has been reported. (CCVIS 500-605170/2)

Method 8082A: The %RPD between the primary and confirmation column exceeded 40% for PCB-1242 for the following sample: ED-R1SD-SW010S (500-201143-19). The higher result on the secondary column has been reported and qualified due to the Continuing calibration verification recovering outside the upper control limit for PCB-1242 on the primary column.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-018

Lab Sample ID: 500-201143-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.0		0.45		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-019

Lab Sample ID: 500-201143-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.0		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-020

Lab Sample ID: 500-201143-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	3.7		0.47		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW010S

Lab Sample ID: 500-201143-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.6		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW012S

Lab Sample ID: 500-201143-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.60		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW013N

Lab Sample ID: 500-201143-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.1		0.41		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201143-12	ED-R1SD-018	Solid	06/17/21 16:45	06/18/21 16:45	
500-201143-13	ED-R1SD-019	Solid	06/17/21 16:50	06/18/21 16:45	
500-201143-14	ED-R1SD-020	Solid	06/17/21 17:00	06/18/21 16:45	
500-201143-19	ED-R1SD-SW010S	Solid	06/17/21 17:40	06/18/21 16:45	
500-201143-21	ED-R1SD-SW012S	Solid	06/17/21 18:00	06/18/21 16:45	
500-201143-22	ED-R1SD-SW013N	Solid	06/17/21 18:10	06/18/21 16:45	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-018

Lab Sample ID: 500-201143-12

Date Collected: 06/17/21 16:45

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 72.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.45		0.45		mg/Kg	☼	06/18/21 17:15	06/21/21 12:49	20
PCB-1221	<0.45		0.45		mg/Kg	☼	06/18/21 17:15	06/21/21 12:49	20
PCB-1232	<0.45		0.45		mg/Kg	☼	06/18/21 17:15	06/21/21 12:49	20
PCB-1242	2.0		0.45		mg/Kg	☼	06/18/21 17:15	06/21/21 12:49	20
PCB-1248	<0.45		0.45		mg/Kg	☼	06/18/21 17:15	06/21/21 12:49	20
PCB-1254	<0.45		0.45		mg/Kg	☼	06/18/21 17:15	06/21/21 12:49	20
PCB-1260	<0.45		0.45		mg/Kg	☼	06/18/21 17:15	06/21/21 12:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	06/18/21 17:15	06/21/21 12:49	20
DCB Decachlorobiphenyl	78		37 - 121	06/18/21 17:15	06/21/21 12:49	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-019

Lab Sample ID: 500-201143-13

Date Collected: 06/17/21 16:50

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 13:05	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 13:05	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 13:05	20
PCB-1242	2.0		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 13:05	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 13:05	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 13:05	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/18/21 17:15	06/21/21 13:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	104		49 - 129	06/18/21 17:15	06/21/21 13:05	20
<i>DCB Decachlorobiphenyl</i>	104		37 - 121	06/18/21 17:15	06/21/21 13:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-020

Lab Sample ID: 500-201143-14

Date Collected: 06/17/21 17:00

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 70.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.47		0.47		mg/Kg	☼	06/18/21 17:15	06/21/21 13:20	20
PCB-1221	<0.47		0.47		mg/Kg	☼	06/18/21 17:15	06/21/21 13:20	20
PCB-1232	<0.47		0.47		mg/Kg	☼	06/18/21 17:15	06/21/21 13:20	20
PCB-1242	3.7		0.47		mg/Kg	☼	06/18/21 17:15	06/21/21 13:20	20
PCB-1248	<0.47		0.47		mg/Kg	☼	06/18/21 17:15	06/21/21 13:20	20
PCB-1254	<0.47		0.47		mg/Kg	☼	06/18/21 17:15	06/21/21 13:20	20
PCB-1260	<0.47		0.47		mg/Kg	☼	06/18/21 17:15	06/21/21 13:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	106		49 - 129	06/18/21 17:15	06/21/21 13:20	20
<i>DCB Decachlorobiphenyl</i>	101		37 - 121	06/18/21 17:15	06/21/21 13:20	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-SW010S

Lab Sample ID: 500-201143-19

Date Collected: 06/17/21 17:40

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	✱	06/18/21 17:15	06/21/21 13:36	20
PCB-1221	<0.39		0.39		mg/Kg	✱	06/18/21 17:15	06/21/21 13:36	20
PCB-1232	<0.39		0.39		mg/Kg	✱	06/18/21 17:15	06/21/21 13:36	20
PCB-1242	2.6		0.39		mg/Kg	✱	06/18/21 17:15	06/21/21 13:36	20
PCB-1248	<0.39		0.39		mg/Kg	✱	06/18/21 17:15	06/21/21 13:36	20
PCB-1254	<0.39		0.39		mg/Kg	✱	06/18/21 17:15	06/21/21 13:36	20
PCB-1260	<0.39		0.39		mg/Kg	✱	06/18/21 17:15	06/21/21 13:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	06/18/21 17:15	06/21/21 13:36	20
DCB Decachlorobiphenyl	101		37 - 121	06/18/21 17:15	06/21/21 13:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-SW012S

Lab Sample ID: 500-201143-21

Date Collected: 06/17/21 18:00

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 86.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 17:14	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 17:14	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 17:14	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 17:14	20
PCB-1248	0.60		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 17:14	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 17:14	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/19/21 06:17	06/21/21 17:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	130	S1+	49 - 129	06/19/21 06:17	06/21/21 17:14	20
DCB Decachlorobiphenyl	145	S1+	37 - 121	06/19/21 06:17	06/21/21 17:14	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-SW013N

Lab Sample ID: 500-201143-22

Date Collected: 06/17/21 18:10

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 80.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/19/21 06:17	06/21/21 18:15	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/19/21 06:17	06/21/21 18:15	20
PCB-1232	3.1		0.41		mg/Kg	☼	06/19/21 06:17	06/21/21 18:15	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/19/21 06:17	06/21/21 18:15	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/19/21 06:17	06/21/21 18:15	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/19/21 06:17	06/21/21 18:15	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/19/21 06:17	06/21/21 18:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	06/19/21 06:17	06/21/21 18:15	20
DCB Decachlorobiphenyl	65		37 - 121	06/19/21 06:17	06/21/21 18:15	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

GC Semi VOA

Prep Batch: 604988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-12	ED-R1SD-018	Total/NA	Solid	3541	
500-201143-13	ED-R1SD-019	Total/NA	Solid	3541	
500-201143-14	ED-R1SD-020	Total/NA	Solid	3541	
500-201143-19	ED-R1SD-SW010S	Total/NA	Solid	3541	
MB 500-604988/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-604988/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 605033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-604988/1-A	Method Blank	Total/NA	Solid	8082A	604988
LCS 500-604988/2-A	Lab Control Sample	Total/NA	Solid	8082A	604988

Prep Batch: 605043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-21	ED-R1SD-SW012S	Total/NA	Solid	3541	
500-201143-22	ED-R1SD-SW013N	Total/NA	Solid	3541	
MB 500-605043/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605043/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201143-21 MS	ED-R1SD-SW012S	Total/NA	Solid	3541	
500-201143-21 MSD	ED-R1SD-SW012S	Total/NA	Solid	3541	

Analysis Batch: 605170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-12	ED-R1SD-018	Total/NA	Solid	8082A	604988
500-201143-13	ED-R1SD-019	Total/NA	Solid	8082A	604988
500-201143-14	ED-R1SD-020	Total/NA	Solid	8082A	604988
500-201143-19	ED-R1SD-SW010S	Total/NA	Solid	8082A	604988
500-201143-21	ED-R1SD-SW012S	Total/NA	Solid	8082A	605043
500-201143-22	ED-R1SD-SW013N	Total/NA	Solid	8082A	605043
MB 500-605043/1-A	Method Blank	Total/NA	Solid	8082A	605043
LCS 500-605043/2-A	Lab Control Sample	Total/NA	Solid	8082A	605043
500-201143-21 MS	ED-R1SD-SW012S	Total/NA	Solid	8082A	605043
500-201143-21 MSD	ED-R1SD-SW012S	Total/NA	Solid	8082A	605043

General Chemistry

Analysis Batch: 605128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-12	ED-R1SD-018	Total/NA	Solid	Moisture	
500-201143-13	ED-R1SD-019	Total/NA	Solid	Moisture	
500-201143-14	ED-R1SD-020	Total/NA	Solid	Moisture	
500-201143-19	ED-R1SD-SW010S	Total/NA	Solid	Moisture	

Analysis Batch: 605129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201143-21	ED-R1SD-SW012S	Total/NA	Solid	Moisture	
500-201143-22	ED-R1SD-SW013N	Total/NA	Solid	Moisture	
500-201143-22 DU	ED-R1SD-SW013N	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-201143-12	ED-R1SD-018	87	78
500-201143-13	ED-R1SD-019	104	104
500-201143-14	ED-R1SD-020	106	101
500-201143-19	ED-R1SD-SW010S	89	101
500-201143-21	ED-R1SD-SW012S	130 S1+	145 S1+
500-201143-21 MS	ED-R1SD-SW012S	91	104
500-201143-21 MSD	ED-R1SD-SW012S	85	88
500-201143-22	ED-R1SD-SW013N	87	65
LCS 500-604988/2-A	Lab Control Sample	95	91
LCS 500-605043/2-A	Lab Control Sample	88	104
MB 500-604988/1-A	Method Blank	106	98
MB 500-605043/1-A	Method Blank	118	126 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-604988/1-A
Matrix: Solid
Analysis Batch: 605033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 604988

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1221	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1232	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1242	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1248	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1254	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20
PCB-1260	<0.33		0.33		mg/Kg		06/18/21 17:15	06/19/21 01:09	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	106		49 - 129	06/18/21 17:15	06/19/21 01:09	20
DCB Decachlorobiphenyl	98		37 - 121	06/18/21 17:15	06/19/21 01:09	20

Lab Sample ID: LCS 500-604988/2-A
Matrix: Solid
Analysis Batch: 605033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 604988

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.60		mg/Kg		96	57 - 120
PCB-1260	1.67	1.60		mg/Kg		96	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	95		49 - 129
DCB Decachlorobiphenyl	91		37 - 121

Lab Sample ID: MB 500-605043/1-A
Matrix: Solid
Analysis Batch: 605170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605043

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1221	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1232	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1242	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1248	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1254	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20
PCB-1260	<0.33		0.33		mg/Kg		06/19/21 06:17	06/21/21 18:31	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	118		49 - 129	06/19/21 06:17	06/21/21 18:31	20
DCB Decachlorobiphenyl	126	S1+	37 - 121	06/19/21 06:17	06/21/21 18:31	20

Lab Sample ID: LCS 500-605043/2-A
Matrix: Solid
Analysis Batch: 605170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605043

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.52		mg/Kg		91	57 - 120
PCB-1260	1.67	1.65		mg/Kg		99	61 - 125

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

<u>Surrogate</u>	<u>LCS</u> <u>%Recovery</u>	<u>LCS</u> <u>Qualifier</u>	<u>Limits</u>
Tetrachloro- <i>m</i> -xylene	88		49 - 129
DCB Decachlorobiphenyl	104		37 - 121

Lab Sample ID: 500-201143-21 MS
Matrix: Solid
Analysis Batch: 605170

Client Sample ID: ED-R1SD-SW012S
Prep Type: Total/NA
Prep Batch: 605043

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MS</u> <u>Result</u>	<u>MS</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>Limits</u>
PCB-1016	<0.38		1.82	1.93		mg/Kg	⊛	106	57 - 120
PCB-1260	<0.38		1.82	1.81		mg/Kg	⊛	100	61 - 125

<u>Surrogate</u>	<u>MS</u> <u>%Recovery</u>	<u>MS</u> <u>Qualifier</u>	<u>Limits</u>
Tetrachloro- <i>m</i> -xylene	91		49 - 129
DCB Decachlorobiphenyl	104		37 - 121

Lab Sample ID: 500-201143-21 MSD
Matrix: Solid
Analysis Batch: 605170

Client Sample ID: ED-R1SD-SW012S
Prep Type: Total/NA
Prep Batch: 605043

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MSD</u> <u>Result</u>	<u>MSD</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>Limit</u>
PCB-1016	<0.38		1.91	1.88		mg/Kg	⊛	98	57 - 120	26	30
PCB-1260	<0.38		1.91	1.74		mg/Kg	⊛	91	61 - 125	16	30

<u>Surrogate</u>	<u>MSD</u> <u>%Recovery</u>	<u>MSD</u> <u>Qualifier</u>	<u>Limits</u>
Tetrachloro- <i>m</i> -xylene	85		49 - 129
DCB Decachlorobiphenyl	88		37 - 121

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-018

Lab Sample ID: 500-201143-12

Date Collected: 06/17/21 16:45

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-018

Lab Sample ID: 500-201143-12

Date Collected: 06/17/21 16:45

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 12:49	EF	TAL CHI

Client Sample ID: ED-R1SD-019

Lab Sample ID: 500-201143-13

Date Collected: 06/17/21 16:50

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-019

Lab Sample ID: 500-201143-13

Date Collected: 06/17/21 16:50

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 13:05	EF	TAL CHI

Client Sample ID: ED-R1SD-020

Lab Sample ID: 500-201143-14

Date Collected: 06/17/21 17:00

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Client Sample ID: ED-R1SD-020

Lab Sample ID: 500-201143-14

Date Collected: 06/17/21 17:00

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 70.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 13:20	EF	TAL CHI

Client Sample ID: ED-R1SD-SW010S

Lab Sample ID: 500-201143-19

Date Collected: 06/17/21 17:40

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605128	06/21/21 06:27	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Client Sample ID: ED-R1SD-SW010S

Lab Sample ID: 500-201143-19

Date Collected: 06/17/21 17:40

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			604988	06/18/21 17:15	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 13:36	EF	TAL CHI

Client Sample ID: ED-R1SD-SW012S

Lab Sample ID: 500-201143-21

Date Collected: 06/17/21 18:00

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605129	06/21/21 06:47	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW012S

Lab Sample ID: 500-201143-21

Date Collected: 06/17/21 18:00

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605043	06/19/21 06:17	DAK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 17:14	EF	TAL CHI

Client Sample ID: ED-R1SD-SW013N

Lab Sample ID: 500-201143-22

Date Collected: 06/17/21 18:10

Matrix: Solid

Date Received: 06/18/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605129	06/21/21 06:47	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW013N

Lab Sample ID: 500-201143-22

Date Collected: 06/17/21 18:10

Matrix: Solid

Date Received: 06/18/21 16:45

Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605043	06/19/21 06:17	DAK	TAL CHI
Total/NA	Analysis	8082A		20	605170	06/21/21 18:15	EF	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201143-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



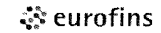
Environment Test ng
America

Client Information		Sampler: <u>Garrett Welch</u>		Lab PM: <u>Kintz Robin M</u>		Carrier Tracking No(s):		COC No: <u>500-92290-41114 3</u>			
Client Contact: <u>Jenny Rickford O'Brien</u>		Phone: <u>865-440-1655</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin: <u>IN</u>		Page <u>3 of 5</u> <u>1 of 3</u>			
Company: <u>Civil & Environmental Consultants Inc</u>				PWSID:		Analysis Requested					
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested: <u>24 HOUR RUSH</u>		 500-201143 COC				Job #: <u>500-201143</u>			
City: <u>Knoxville</u>		TAT Requested (days):						Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs 8082A - Default List		Total Number of Containers	
State/Zip: <u>TN 37920</u>		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: <u>865-340-4914(Tel)</u>		PO #: <u>Purchase Order not required</u>									
Email: <u>jrickfordobrien@cecinc.com</u>		WO #:									
Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>		Project #: <u>50019033</u>		SSOW#:		Preservation Codes: A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J - DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)					
Site: <u>Arconic - Elliott Ditch</u>		SSOW#:		Other:							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	8082A - Default List	Special Instructions/Note		
							N	N			
1 ED-RISD-007	6/17/21	1535	C	S			X		PRIORITIZE		
2 ED-RISD-008	6/17/21	1545	C	S			X				
3 ED-RISD-009	6/17/21	1550	C	S			X				
4 ED-RISD-010	6/17/21	1555	C	S			X				
5 ED-RISD-011	6/17/21	1600	C	S			X				
6 ED-RISD-012	6/17/21	1610	C	S			X				
7 ED-RISD-013	6/17/21	1620	C	S			X				
8 ED-RISD-014	6/17/21	1623	C	S			X				
9 ED-RISD-015	6/17/21	1625	C	S			X				
10 ED-RISD-016	6/17/21	1635	C	S			X				
11 ED-RISD-017	6/17/21	1640	C	S			X				
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> IV Other (specify)					Special Instructions/QC Requirements						
Empty Kit Relinquished by:		Date		Time		Method of Shipment:					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/18/21 1525</u>		Company: <u>ETA</u>		Received by: <u>[Signature]</u>		Date/Time: <u>6/18/21 1525</u> Company: <u>ETA</u>			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>6/18/21 1645</u>		Company: <u>ETA</u>		Received by: <u>Stephanie Hernandez</u>		Date/Time: <u>6/18/21 1645</u> Company: <u>ETA-CH</u>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time: Company:			
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>4.9-4.6</u>							

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
America

Client Information		Sampler: <u>Garrett Welch</u>	Lab PM: <u>Kintz Robin M</u>	Carrier Tracking No(s):	COC No: <u>500-92290-41114 4</u>																									
Client Contact: <u>Jenny Rickford O'Brien</u>		Phone: <u>865-440-1655</u>	E-Mail: <u>Robin.Kintz@Eurofinset.com</u>	State of Origin: <u>IN</u>	Page: <u>4 of 3</u> Page 1 of 3 2 of 3																									
Company: <u>Civil & Environmental Consultants Inc</u>		PWSID		Analysis Requested																										
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested: <u>24 Hour Rush</u>	<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> <tr><td>8082A - Default List</td><td></td></tr> </table>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		8082A - Default List		Job #: <u>500-201143</u>																	
Field Filtered Sample (Yes or No)																														
Perform MS/MSD (Yes or No)																														
8082A - PCBs																														
8082A - Default List																														
City: <u>Knoxville</u>		TAT Requested (days)	<table border="1"> <tr><td>Preservation Codes</td><td></td></tr> <tr><td>A HCL</td><td>M Hexane</td></tr> <tr><td>B NaOH</td><td>N None</td></tr> <tr><td>C Zn Acetate</td><td>O AsNaO2</td></tr> <tr><td>D Nitric Acid</td><td>P Na2O4S</td></tr> <tr><td>E NaHSO4</td><td>Q Na2SO3</td></tr> <tr><td>F MeOH</td><td>R Na2S2O3</td></tr> <tr><td>G Amchlor</td><td>S H2SO4</td></tr> <tr><td>H Ascorbic Acid</td><td>T TSP Dodecahydrate</td></tr> <tr><td>I Ice</td><td>U Acetone</td></tr> <tr><td>J DI Water</td><td>V MCAA</td></tr> <tr><td>K EDTA</td><td>W pH 4-5</td></tr> <tr><td>L-EDA</td><td>Z other (specify)</td></tr> </table>	Preservation Codes		A HCL	M Hexane	B NaOH	N None	C Zn Acetate	O AsNaO2	D Nitric Acid	P Na2O4S	E NaHSO4	Q Na2SO3	F MeOH	R Na2S2O3	G Amchlor	S H2SO4	H Ascorbic Acid	T TSP Dodecahydrate	I Ice	U Acetone	J DI Water	V MCAA	K EDTA	W pH 4-5	L-EDA	Z other (specify)	Other:
Preservation Codes																														
A HCL	M Hexane																													
B NaOH	N None																													
C Zn Acetate	O AsNaO2																													
D Nitric Acid	P Na2O4S																													
E NaHSO4	Q Na2SO3																													
F MeOH	R Na2S2O3																													
G Amchlor	S H2SO4																													
H Ascorbic Acid	T TSP Dodecahydrate																													
I Ice	U Acetone																													
J DI Water	V MCAA																													
K EDTA	W pH 4-5																													
L-EDA	Z other (specify)																													
State Zip: <u>TN 37920</u>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	<table border="1"> <tr><td>Special Instructions/Note</td><td></td></tr> </table>	Special Instructions/Note																										
Special Instructions/Note																														
Phone: <u>865-340-4914(Tel)</u>		PO #: <u>Purchase Order not required</u>																												
Email: <u>jrickfordobrien@cecinc.com</u>		WO #:																												
Project Name: <u>Arconic PCB Rush Project Lafayette, IN</u>		Project #: <u>50019033</u>																												
Site: <u>Arconic - Elliott Ditch</u>		SSOW#:																												
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	8082A - Default List	Total Number of Containers	Special Instructions/Note																			
12																														
13																														
14																														
15																														
16																														
17																														
18																														
19																														
20																														
21																														
22																														
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																								
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																								
Deliverable Requested <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Other (specify)						Special Instructions/QC Requirements: <u>Hold sidewalk samples until further instruction</u>																								
Empty Kit Relinquished by			Date		Time		Method of Shipment:																							
Relinquished by: <u>[Signature]</u>			Date/Time: <u>6/18/21 1525</u>		Company: <u>ETA</u>		Received by: <u>[Signature]</u>		Date/Time: <u>6/18/21 1525</u>		Company: <u>ETA</u>																			
Relinquished by: <u>[Signature]</u>			Date/Time: <u>6/18/21 1645</u>		Company: <u>ETA</u>		Received by: <u>Stephanie Hernandez</u>		Date/Time: <u>6/18/21 1645</u>		Company: <u>ETA-CH</u>																			
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:		Company:																			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>4974.6</u>																									

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201143-3

Login Number: 201143

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201191-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/23/2021 8:41:20 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Job ID: 500-201191-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201191-1

Comments

No additional comments.

Receipt

The samples were received on 6/21/2021 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6° C.

GC Semi VOA

Method 8082A: The method blank (MB) was slightly outside of the control limits for DCB Decachlorobiphenyl for preparation batch 500-605355 and analytical batch 500-605551. The MB did not contain any target analytes; therefore the data has been reported. (MB 500-605355/1-A)

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-022 (500-201191-3), ED-R1SD-022 (500-201191-3[MSJ]), ED-R1SD-022 (500-201191-3[MSD]), ED-R1SD-023 (500-201191-4), ED-R1SD-027 (500-201191-8), ED-R1SD-SW015N (500-201191-11) and ED-R1SD-SW017N (500-201191-13).

Method 8082A: Surrogate recovery for the following sample was outside control limits: ED-R1SD-024 (500-201191-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: Tetrachloro-m-xylene Surrogate recovery for the following sample was outside control limits: ED-R1SD-028 (500-201191-9). DCB Decachlorobiphenyl Surrogate was within the control limits; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-021 (500-201191-1), ED-R1SD-DUP2 (500-201191-2), ED-R1SD-024 (500-201191-5), ED-R1SD-025 (500-201191-6), ED-R1SD-026 (500-201191-7), ED-R1SD-028 (500-201191-9), ED-R1SD-SW019N (500-201191-15) and ED-R1SD-029 (500-201191-17).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-021 (500-201191-1), ED-R1SD-DUP2 (500-201191-2), ED-R1SD-024 (500-201191-5), ED-R1SD-025 (500-201191-6), ED-R1SD-026 (500-201191-7), ED-R1SD-028 (500-201191-9), ED-R1SD-SW019N (500-201191-15), ED-R1SD-029 (500-201191-17), (500-201191-A-1-B MS) and (500-201191-A-1-C MSD). The reagent lot number used was: Z079073.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-030 (500-201191-18).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW014S (500-201191-10) and ED-R1SD-SW022S (500-201191-21).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW014S (500-201191-10), ED-R1SD-SW016S (500-201191-12), ED-R1SD-SW018S (500-201191-14), ED-R1SD-030 (500-201191-18) and ED-R1SD-SW022S (500-201191-21). The reagent lot number used was: Z07G073.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-021

Lab Sample ID: 500-201191-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.9		2.1		mg/Kg	100	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-DUP2

Lab Sample ID: 500-201191-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	4.2		2.1		mg/Kg	100	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-022

Lab Sample ID: 500-201191-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.5		2.0		mg/Kg	100	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-023

Lab Sample ID: 500-201191-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.1		0.44		mg/Kg	20	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-024

Lab Sample ID: 500-201191-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.6		0.42		mg/Kg	20	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-025

Lab Sample ID: 500-201191-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.2		0.40		mg/Kg	20	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-026

Lab Sample ID: 500-201191-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	7.9		2.0		mg/Kg	100	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-027

Lab Sample ID: 500-201191-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	8.9		2.0		mg/Kg	100	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-028

Lab Sample ID: 500-201191-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.75		0.40		mg/Kg	20	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-SW014S

Lab Sample ID: 500-201191-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.2		0.39		mg/Kg	20	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-SW015N

Lab Sample ID: 500-201191-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.2		0.41		mg/Kg	20	✱	8082A	Total/NA

Client Sample ID: ED-R1SD-SW016S

Lab Sample ID: 500-201191-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW017N

Lab Sample ID: 500-201191-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.70		0.44		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW018S

Lab Sample ID: 500-201191-14

No Detections.

Client Sample ID: ED-R1SD-SW019N

Lab Sample ID: 500-201191-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.9		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-029

Lab Sample ID: 500-201191-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.2		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-030

Lab Sample ID: 500-201191-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.2		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW022S

Lab Sample ID: 500-201191-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.75		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW023N

Lab Sample ID: 500-201191-22

No Detections.

This Detection Summary does not include radiochemical test results.

Euofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201191-1	ED-R1SD-021	Solid	06/18/21 16:40	06/21/21 16:15	
500-201191-2	ED-R1SD-DUP2	Solid	06/18/21 00:00	06/21/21 16:15	
500-201191-3	ED-R1SD-022	Solid	06/18/21 16:47	06/21/21 16:15	
500-201191-4	ED-R1SD-023	Solid	06/18/21 16:57	06/21/21 16:15	
500-201191-5	ED-R1SD-024	Solid	06/18/21 17:05	06/21/21 16:15	
500-201191-6	ED-R1SD-025	Solid	06/18/21 17:12	06/21/21 16:15	
500-201191-7	ED-R1SD-026	Solid	06/18/21 17:20	06/21/21 16:15	
500-201191-8	ED-R1SD-027	Solid	06/18/21 17:25	06/21/21 16:15	
500-201191-9	ED-R1SD-028	Solid	06/18/21 17:30	06/21/21 16:15	
500-201191-10	ED-R1SD-SW014S	Solid	06/18/21 17:35	06/21/21 16:15	
500-201191-11	ED-R1SD-SW015N	Solid	06/18/21 17:40	06/21/21 16:15	
500-201191-12	ED-R1SD-SW016S	Solid	06/18/21 17:43	06/21/21 16:15	
500-201191-13	ED-R1SD-SW017N	Solid	06/18/21 17:53	06/21/21 16:15	
500-201191-14	ED-R1SD-SW018S	Solid	06/18/21 17:59	06/21/21 16:15	
500-201191-15	ED-R1SD-SW019N	Solid	06/18/21 18:05	06/21/21 16:15	
500-201191-17	ED-R1SD-029	Solid	06/21/21 13:16	06/21/21 16:15	
500-201191-18	ED-R1SD-030	Solid	06/21/21 13:22	06/21/21 16:15	
500-201191-21	ED-R1SD-SW022S	Solid	06/21/21 13:30	06/21/21 16:15	
500-201191-22	ED-R1SD-SW023N	Solid	06/21/21 13:37	06/21/21 16:15	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-021

Lab Sample ID: 500-201191-1

Date Collected: 06/18/21 16:40

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 78.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.1	F1	2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 10:32	100
PCB-1221	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 10:32	100
PCB-1232	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 10:32	100
PCB-1242	2.9		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 10:32	100
PCB-1248	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 10:32	100
PCB-1254	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 10:32	100
PCB-1260	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 10:32	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	86		49 - 129	06/21/21 17:00	06/22/21 10:32	100
<i>DCB Decachlorobiphenyl</i>	88		37 - 121	06/21/21 17:00	06/22/21 10:32	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-DUP2

Lab Sample ID: 500-201191-2

Date Collected: 06/18/21 00:00

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 80.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 11:19	100
PCB-1221	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 11:19	100
PCB-1232	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 11:19	100
PCB-1242	4.2		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 11:19	100
PCB-1248	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 11:19	100
PCB-1254	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 11:19	100
PCB-1260	<2.1		2.1		mg/Kg	☼	06/21/21 17:00	06/22/21 11:19	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	06/21/21 17:00	06/22/21 11:19	100
DCB Decachlorobiphenyl	79		37 - 121	06/21/21 17:00	06/22/21 11:19	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-022

Lab Sample ID: 500-201191-3

Date Collected: 06/18/21 16:47

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 83.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.0	F1	2.0		mg/Kg	✱	06/22/21 06:32	06/22/21 19:26	100
PCB-1221	<2.0		2.0		mg/Kg	✱	06/22/21 06:32	06/22/21 19:26	100
PCB-1232	<2.0		2.0		mg/Kg	✱	06/22/21 06:32	06/22/21 19:26	100
PCB-1242	2.5		2.0		mg/Kg	✱	06/22/21 06:32	06/22/21 19:26	100
PCB-1248	<2.0		2.0		mg/Kg	✱	06/22/21 06:32	06/22/21 19:26	100
PCB-1254	<2.0		2.0		mg/Kg	✱	06/22/21 06:32	06/22/21 19:26	100
PCB-1260	<2.0		2.0		mg/Kg	✱	06/22/21 06:32	06/22/21 19:26	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		49 - 129	06/22/21 06:32	06/22/21 19:26	100
DCB Decachlorobiphenyl	104		37 - 121	06/22/21 06:32	06/22/21 19:26	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-023

Lab Sample ID: 500-201191-4

Date Collected: 06/18/21 16:57

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 74.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 17:53	20
PCB-1221	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 17:53	20
PCB-1232	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 17:53	20
PCB-1242	2.1		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 17:53	20
PCB-1248	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 17:53	20
PCB-1254	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 17:53	20
PCB-1260	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 17:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	105		49 - 129	06/21/21 17:00	06/22/21 17:53	20
<i>DCB Decachlorobiphenyl</i>	62		37 - 121	06/21/21 17:00	06/22/21 17:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-024

Lab Sample ID: 500-201191-5

Date Collected: 06/18/21 17:05

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 78.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 15:25	20
PCB-1221	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 15:25	20
PCB-1232	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 15:25	20
PCB-1242	1.6		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 15:25	20
PCB-1248	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 15:25	20
PCB-1254	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 15:25	20
PCB-1260	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 15:25	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	19	S1-	49 - 129	06/21/21 17:00	06/22/21 15:25	20
DCB Decachlorobiphenyl	21	S1-	37 - 121	06/21/21 17:00	06/22/21 15:25	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-025

Lab Sample ID: 500-201191-6

Date Collected: 06/18/21 17:12

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 81.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 12:20	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 12:20	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 12:20	20
PCB-1242	2.2		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 12:20	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 12:20	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 12:20	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 12:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	06/21/21 17:00	06/22/21 12:20	20
DCB Decachlorobiphenyl	92		37 - 121	06/21/21 17:00	06/22/21 12:20	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-026

Lab Sample ID: 500-201191-7

Date Collected: 06/18/21 17:20

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 83.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 15:41	100
PCB-1221	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 15:41	100
PCB-1232	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 15:41	100
PCB-1242	7.9		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 15:41	100
PCB-1248	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 15:41	100
PCB-1254	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 15:41	100
PCB-1260	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 15:41	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	06/21/21 17:00	06/22/21 15:41	100
DCB Decachlorobiphenyl	80		37 - 121	06/21/21 17:00	06/22/21 15:41	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-027

Lab Sample ID: 500-201191-8

Date Collected: 06/18/21 17:25

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 82.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 18:24	100
PCB-1221	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 18:24	100
PCB-1232	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 18:24	100
PCB-1242	8.9		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 18:24	100
PCB-1248	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 18:24	100
PCB-1254	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 18:24	100
PCB-1260	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 18:24	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	06/21/21 17:00	06/22/21 18:24	100
DCB Decachlorobiphenyl	101		37 - 121	06/21/21 17:00	06/22/21 18:24	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-028

Lab Sample ID: 500-201191-9

Date Collected: 06/18/21 17:30

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 82.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 13:07	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 13:07	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 13:07	20
PCB-1242	0.75		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 13:07	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 13:07	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 13:07	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 13:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	46	S1-	49 - 129	06/21/21 17:00	06/22/21 13:07	20
DCB Decachlorobiphenyl	54		37 - 121	06/21/21 17:00	06/22/21 13:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW014S

Lab Sample ID: 500-201191-10

Date Collected: 06/18/21 17:35

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 86.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 04:31	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 04:31	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 04:31	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 04:31	20
PCB-1248	1.2		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 04:31	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 04:31	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 04:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	06/21/21 17:00	06/22/21 04:31	20
DCB Decachlorobiphenyl	87		37 - 121	06/21/21 17:00	06/22/21 04:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW015N

Lab Sample ID: 500-201191-11

Date Collected: 06/18/21 17:40

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 82.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/21/21 17:00	06/22/21 18:09	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/21/21 17:00	06/22/21 18:09	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/21/21 17:00	06/22/21 18:09	20
PCB-1242	2.2		0.41		mg/Kg	☼	06/21/21 17:00	06/22/21 18:09	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/21/21 17:00	06/22/21 18:09	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/21/21 17:00	06/22/21 18:09	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/21/21 17:00	06/22/21 18:09	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		49 - 129	06/21/21 17:00	06/22/21 18:09	20
DCB Decachlorobiphenyl	98		37 - 121	06/21/21 17:00	06/22/21 18:09	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW016S

Lab Sample ID: 500-201191-12

Date Collected: 06/18/21 17:43

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 86.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 05:02	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 05:02	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 05:02	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 05:02	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 05:02	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 05:02	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 05:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		49 - 129	06/21/21 17:00	06/22/21 05:02	20
DCB Decachlorobiphenyl	86		37 - 121	06/21/21 17:00	06/22/21 05:02	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW017N

Lab Sample ID: 500-201191-13

Date Collected: 06/18/21 17:53

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 74.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 18:39	20
PCB-1221	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 18:39	20
PCB-1232	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 18:39	20
PCB-1242	0.70		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 18:39	20
PCB-1248	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 18:39	20
PCB-1254	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 18:39	20
PCB-1260	<0.44		0.44		mg/Kg	☼	06/21/21 17:00	06/22/21 18:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	06/21/21 17:00	06/22/21 18:39	20
DCB Decachlorobiphenyl	94		37 - 121	06/21/21 17:00	06/22/21 18:39	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW018S

Lab Sample ID: 500-201191-14

Date Collected: 06/18/21 17:59

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 83.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 05:33	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 05:33	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 05:33	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 05:33	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 05:33	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 05:33	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 05:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	06/21/21 17:00	06/22/21 05:33	20
DCB Decachlorobiphenyl	84		37 - 121	06/21/21 17:00	06/22/21 05:33	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW019N

Lab Sample ID: 500-201191-15

Date Collected: 06/18/21 18:05

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 78.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 14:08	20
PCB-1221	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 14:08	20
PCB-1232	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 14:08	20
PCB-1242	1.9		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 14:08	20
PCB-1248	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 14:08	20
PCB-1254	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 14:08	20
PCB-1260	<0.42		0.42		mg/Kg	☼	06/21/21 17:00	06/22/21 14:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	101		49 - 129	06/21/21 17:00	06/22/21 14:08	20
DCB Decachlorobiphenyl	114		37 - 121	06/21/21 17:00	06/22/21 14:08	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-029

Lab Sample ID: 500-201191-17

Date Collected: 06/21/21 13:16

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 83.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 14:24	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 14:24	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 14:24	20
PCB-1242	1.2		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 14:24	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 14:24	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 14:24	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/21/21 17:00	06/22/21 14:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	70		49 - 129	06/21/21 17:00	06/22/21 14:24	20
<i>DCB Decachlorobiphenyl</i>	88		37 - 121	06/21/21 17:00	06/22/21 14:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-030

Lab Sample ID: 500-201191-18

Date Collected: 06/21/21 13:22

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:19	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:19	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:19	20
PCB-1242	1.2		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:19	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:19	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:19	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	06/21/21 17:00	06/22/21 06:19	20
DCB Decachlorobiphenyl	87		37 - 121	06/21/21 17:00	06/22/21 06:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW022S

Lab Sample ID: 500-201191-21

Date Collected: 06/21/21 13:30

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 07:05	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 07:05	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 07:05	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 07:05	20
PCB-1248	0.75		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 07:05	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 07:05	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 07:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		49 - 129	06/21/21 17:00	06/22/21 07:05	20
DCB Decachlorobiphenyl	87		37 - 121	06/21/21 17:00	06/22/21 07:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW023N

Lab Sample ID: 500-201191-22

Date Collected: 06/21/21 13:37

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:12	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:12	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:12	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:12	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:12	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:12	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		49 - 129	06/22/21 06:32	06/22/21 20:12	20
DCB Decachlorobiphenyl	119		37 - 121	06/22/21 06:32	06/22/21 20:12	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

GC Semi VOA

Prep Batch: 605310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-1	ED-R1SD-021	Total/NA	Solid	3541	
500-201191-2	ED-R1SD-DUP2	Total/NA	Solid	3541	
500-201191-4	ED-R1SD-023	Total/NA	Solid	3541	
500-201191-5	ED-R1SD-024	Total/NA	Solid	3541	
500-201191-6	ED-R1SD-025	Total/NA	Solid	3541	
500-201191-7	ED-R1SD-026	Total/NA	Solid	3541	
500-201191-8	ED-R1SD-027	Total/NA	Solid	3541	
500-201191-9	ED-R1SD-028	Total/NA	Solid	3541	
500-201191-10	ED-R1SD-SW014S	Total/NA	Solid	3541	
500-201191-11	ED-R1SD-SW015N	Total/NA	Solid	3541	
500-201191-12	ED-R1SD-SW016S	Total/NA	Solid	3541	
500-201191-13	ED-R1SD-SW017N	Total/NA	Solid	3541	
500-201191-14	ED-R1SD-SW018S	Total/NA	Solid	3541	
500-201191-15	ED-R1SD-SW019N	Total/NA	Solid	3541	
500-201191-17	ED-R1SD-029	Total/NA	Solid	3541	
500-201191-18	ED-R1SD-030	Total/NA	Solid	3541	
500-201191-21	ED-R1SD-SW022S	Total/NA	Solid	3541	
MB 500-605310/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605310/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201191-1 MS	ED-R1SD-021	Total/NA	Solid	3541	
500-201191-1 MSD	ED-R1SD-021	Total/NA	Solid	3541	

Analysis Batch: 605321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-10	ED-R1SD-SW014S	Total/NA	Solid	8082A	605310
500-201191-12	ED-R1SD-SW016S	Total/NA	Solid	8082A	605310
500-201191-14	ED-R1SD-SW018S	Total/NA	Solid	8082A	605310
500-201191-18	ED-R1SD-030	Total/NA	Solid	8082A	605310
500-201191-21	ED-R1SD-SW022S	Total/NA	Solid	8082A	605310
MB 500-605310/1-A	Method Blank	Total/NA	Solid	8082A	605310
LCS 500-605310/2-A	Lab Control Sample	Total/NA	Solid	8082A	605310

Prep Batch: 605355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-3	ED-R1SD-022	Total/NA	Solid	3541	
500-201191-22	ED-R1SD-SW023N	Total/NA	Solid	3541	
MB 500-605355/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605355/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201191-3 MS	ED-R1SD-022	Total/NA	Solid	3541	
500-201191-3 MSD	ED-R1SD-022	Total/NA	Solid	3541	

Analysis Batch: 605437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-1	ED-R1SD-021	Total/NA	Solid	8082A	605310
500-201191-2	ED-R1SD-DUP2	Total/NA	Solid	8082A	605310
500-201191-5	ED-R1SD-024	Total/NA	Solid	8082A	605310
500-201191-6	ED-R1SD-025	Total/NA	Solid	8082A	605310
500-201191-7	ED-R1SD-026	Total/NA	Solid	8082A	605310
500-201191-9	ED-R1SD-028	Total/NA	Solid	8082A	605310
500-201191-15	ED-R1SD-SW019N	Total/NA	Solid	8082A	605310
500-201191-17	ED-R1SD-029	Total/NA	Solid	8082A	605310

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

GC Semi VOA (Continued)

Analysis Batch: 605437 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-605310/1-A	Method Blank	Total/NA	Solid	8082A	605310
500-201191-1 MS	ED-R1SD-021	Total/NA	Solid	8082A	605310
500-201191-1 MSD	ED-R1SD-021	Total/NA	Solid	8082A	605310

Analysis Batch: 605551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-3	ED-R1SD-022	Total/NA	Solid	8082A	605355
500-201191-4	ED-R1SD-023	Total/NA	Solid	8082A	605310
500-201191-8	ED-R1SD-027	Total/NA	Solid	8082A	605310
500-201191-11	ED-R1SD-SW015N	Total/NA	Solid	8082A	605310
500-201191-13	ED-R1SD-SW017N	Total/NA	Solid	8082A	605310
500-201191-22	ED-R1SD-SW023N	Total/NA	Solid	8082A	605355
MB 500-605355/1-A	Method Blank	Total/NA	Solid	8082A	605355
LCS 500-605355/2-A	Lab Control Sample	Total/NA	Solid	8082A	605355
500-201191-3 MS	ED-R1SD-022	Total/NA	Solid	8082A	605355
500-201191-3 MSD	ED-R1SD-022	Total/NA	Solid	8082A	605355

General Chemistry

Analysis Batch: 605340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-1	ED-R1SD-021	Total/NA	Solid	Moisture	
500-201191-2	ED-R1SD-DUP2	Total/NA	Solid	Moisture	
500-201191-3	ED-R1SD-022	Total/NA	Solid	Moisture	
500-201191-4	ED-R1SD-023	Total/NA	Solid	Moisture	
500-201191-5	ED-R1SD-024	Total/NA	Solid	Moisture	
500-201191-6	ED-R1SD-025	Total/NA	Solid	Moisture	
500-201191-7	ED-R1SD-026	Total/NA	Solid	Moisture	
500-201191-8	ED-R1SD-027	Total/NA	Solid	Moisture	
500-201191-9	ED-R1SD-028	Total/NA	Solid	Moisture	
500-201191-10	ED-R1SD-SW014S	Total/NA	Solid	Moisture	
500-201191-11	ED-R1SD-SW015N	Total/NA	Solid	Moisture	
500-201191-12	ED-R1SD-SW016S	Total/NA	Solid	Moisture	
500-201191-13	ED-R1SD-SW017N	Total/NA	Solid	Moisture	
500-201191-14	ED-R1SD-SW018S	Total/NA	Solid	Moisture	
500-201191-15	ED-R1SD-SW019N	Total/NA	Solid	Moisture	
500-201191-17	ED-R1SD-029	Total/NA	Solid	Moisture	
500-201191-18	ED-R1SD-030	Total/NA	Solid	Moisture	
500-201191-21	ED-R1SD-SW022S	Total/NA	Solid	Moisture	
500-201191-1 DU	ED-R1SD-021	Total/NA	Solid	Moisture	

Analysis Batch: 605348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-22	ED-R1SD-SW023N	Total/NA	Solid	Moisture	
500-201191-22 DU	ED-R1SD-SW023N	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201191-1	ED-R1SD-021	86	88
500-201191-1 MS	ED-R1SD-021	79	87
500-201191-1 MSD	ED-R1SD-021	95	107
500-201191-2	ED-R1SD-DUP2	70	79
500-201191-3	ED-R1SD-022	88	104
500-201191-3 MS	ED-R1SD-022	88	90
500-201191-3 MSD	ED-R1SD-022	83	97
500-201191-4	ED-R1SD-023	105	62
500-201191-5	ED-R1SD-024	19 S1-	21 S1-
500-201191-6	ED-R1SD-025	83	92
500-201191-7	ED-R1SD-026	65	80
500-201191-8	ED-R1SD-027	84	101
500-201191-9	ED-R1SD-028	46 S1-	54
500-201191-11	ED-R1SD-SW015N	90	98
500-201191-13	ED-R1SD-SW017N	87	94
500-201191-15	ED-R1SD-SW019N	101	114
500-201191-17	ED-R1SD-029	70	88
500-201191-22	ED-R1SD-SW023N	91	119
LCS 500-605355/2-A	Lab Control Sample	79	104
MB 500-605310/1-A	Method Blank	94	93
MB 500-605355/1-A	Method Blank	105	145 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-201191-10	ED-R1SD-SW014S	83	87
500-201191-12	ED-R1SD-SW016S	78	86
500-201191-14	ED-R1SD-SW018S	74	84
500-201191-18	ED-R1SD-030	70	87
500-201191-21	ED-R1SD-SW022S	79	87
LCS 500-605310/2-A	Lab Control Sample	81	65
MB 500-605310/1-A	Method Blank	91	67

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-605310/1-A
Matrix: Solid
Analysis Batch: 605321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605310

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1221	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1232	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1242	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1248	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1254	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1260	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		49 - 129				06/21/21 17:00	06/22/21 01:10	20
DCB Decachlorobiphenyl	67		37 - 121				06/21/21 17:00	06/22/21 01:10	20

Lab Sample ID: MB 500-605310/1-A
Matrix: Solid
Analysis Batch: 605437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605310

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1221	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1232	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1242	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1248	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1254	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1260	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		49 - 129				06/21/21 17:00	06/22/21 10:17	20
DCB Decachlorobiphenyl	93		37 - 121				06/21/21 17:00	06/22/21 10:17	20

Lab Sample ID: LCS 500-605310/2-A
Matrix: Solid
Analysis Batch: 605321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
PCB-1016	1.67	1.36		mg/Kg		82	57 - 120	
PCB-1260	1.67	1.25		mg/Kg		75	61 - 125	
Surrogate	%Recovery	Qualifier	Limits					
Tetrachloro-m-xylene	81		49 - 129					
DCB Decachlorobiphenyl	65		37 - 121					

Lab Sample ID: 500-201191-1 MS
Matrix: Solid
Analysis Batch: 605437

Client Sample ID: ED-R1SD-021
Prep Type: Total/NA
Prep Batch: 605310

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	
PCB-1016	<2.1	F1	2.11	4.61	F1	mg/Kg	☼	218	57 - 120	
PCB-1260	<2.1		2.11	<2.1		mg/Kg	☼	82	61 - 125	

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		49 - 129
DCB Decachlorobiphenyl	87		37 - 121

Lab Sample ID: 500-201191-1 MSD
Matrix: Solid
Analysis Batch: 605437

Client Sample ID: ED-R1SD-021
Prep Type: Total/NA
Prep Batch: 605310

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec.		RPD	Limit
				Result	Qualifier				Limits	RPD		
PCB-1016	<2.1	F1	2.12	4.02	F1	mg/Kg	⊛	190	57 - 120	14	30	
PCB-1260	<2.1		2.12	<2.1		mg/Kg	⊛	98	61 - 125	18	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	95		49 - 129
DCB Decachlorobiphenyl	107		37 - 121

Lab Sample ID: MB 500-605355/1-A
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605355

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier					Time	Time	Time	Time	
PCB-1016	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	
PCB-1221	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	
PCB-1232	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	
PCB-1242	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	
PCB-1248	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	
PCB-1254	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	
PCB-1260	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier		Time	Time	Time	Time	
Tetrachloro-m-xylene	105		49 - 129	06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	
DCB Decachlorobiphenyl	145	S1+	37 - 121	06/22/21 06:32	06/22/21 18:55	06/22/21 18:55	20	

Lab Sample ID: LCS 500-605355/2-A
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605355

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	RPD
PCB-1016	1.67	1.45		mg/Kg		87	57 - 120	
PCB-1260	1.67	1.49		mg/Kg		89	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		49 - 129
DCB Decachlorobiphenyl	104		37 - 121

Lab Sample ID: 500-201191-3 MS
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: ED-R1SD-022
Prep Type: Total/NA
Prep Batch: 605355

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec.	
				Result	Qualifier				Limits	RPD
PCB-1016	<2.0	F1	1.95	8.15	F1	mg/Kg	⊛	418	57 - 120	
PCB-1260	<2.0		1.95	2.18		mg/Kg	⊛	112	61 - 125	

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

<i>Surrogate</i>	<i>MS</i>	<i>MS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
<i>Tetrachloro-m-xylene</i>	88		49 - 129
<i>DCB Decachlorobiphenyl</i>	90		37 - 121

Lab Sample ID: 500-201191-3 MSD
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: ED-R1SD-022
Prep Type: Total/NA
Prep Batch: 605355

<i>Analyte</i>	<i>Sample</i>	<i>Sample</i>	<i>Spike</i>	<i>MSD</i>	<i>MSD</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i>	<i>RPD</i>	<i>Limit</i>
	<i>Result</i>	<i>Qualifier</i>	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>	<i>RPD</i>	
PCB-1016	<2.0	F1	2.00	6.24	F1	mg/Kg	⊛	312	57 - 120	27	30
PCB-1260	<2.0		2.00	<2.0		mg/Kg	⊛	95	61 - 125	13	30

<i>Surrogate</i>	<i>MSD</i>	<i>MSD</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
<i>Tetrachloro-m-xylene</i>	83		49 - 129
<i>DCB Decachlorobiphenyl</i>	97		37 - 121

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-021

Date Collected: 06/18/21 16:40

Date Received: 06/21/21 16:15

Lab Sample ID: 500-201191-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-021

Date Collected: 06/18/21 16:40

Date Received: 06/21/21 16:15

Lab Sample ID: 500-201191-1

Matrix: Solid

Percent Solids: 78.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		100	605437	06/22/21 10:32	EF	TAL CHI

Client Sample ID: ED-R1SD-DUP2

Date Collected: 06/18/21 00:00

Date Received: 06/21/21 16:15

Lab Sample ID: 500-201191-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP2

Date Collected: 06/18/21 00:00

Date Received: 06/21/21 16:15

Lab Sample ID: 500-201191-2

Matrix: Solid

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		100	605437	06/22/21 11:19	EF	TAL CHI

Client Sample ID: ED-R1SD-022

Date Collected: 06/18/21 16:47

Date Received: 06/21/21 16:15

Lab Sample ID: 500-201191-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-022

Date Collected: 06/18/21 16:47

Date Received: 06/21/21 16:15

Lab Sample ID: 500-201191-3

Matrix: Solid

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605355	06/22/21 06:32	CLL	TAL CHI
Total/NA	Analysis	8082A		100	605551	06/22/21 19:26	PJ1	TAL CHI

Client Sample ID: ED-R1SD-023

Date Collected: 06/18/21 16:57

Date Received: 06/21/21 16:15

Lab Sample ID: 500-201191-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-023

Lab Sample ID: 500-201191-4

Date Collected: 06/18/21 16:57

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 74.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/22/21 17:53	PJ1	TAL CHI

Client Sample ID: ED-R1SD-024

Lab Sample ID: 500-201191-5

Date Collected: 06/18/21 17:05

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-024

Lab Sample ID: 500-201191-5

Date Collected: 06/18/21 17:05

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605437	06/22/21 15:25	EF	TAL CHI

Client Sample ID: ED-R1SD-025

Lab Sample ID: 500-201191-6

Date Collected: 06/18/21 17:12

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-025

Lab Sample ID: 500-201191-6

Date Collected: 06/18/21 17:12

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605437	06/22/21 12:20	EF	TAL CHI

Client Sample ID: ED-R1SD-026

Lab Sample ID: 500-201191-7

Date Collected: 06/18/21 17:20

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-026

Lab Sample ID: 500-201191-7

Date Collected: 06/18/21 17:20

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		100	605437	06/22/21 15:41	EF	TAL CHI

Client Sample ID: ED-R1SD-027

Lab Sample ID: 500-201191-8

Date Collected: 06/18/21 17:25

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-027

Lab Sample ID: 500-201191-8

Date Collected: 06/18/21 17:25

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		100	605551	06/22/21 18:24	PJ1	TAL CHI

Client Sample ID: ED-R1SD-028

Lab Sample ID: 500-201191-9

Date Collected: 06/18/21 17:30

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-028

Lab Sample ID: 500-201191-9

Date Collected: 06/18/21 17:30

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605437	06/22/21 13:07	EF	TAL CHI

Client Sample ID: ED-R1SD-SW014S

Lab Sample ID: 500-201191-10

Date Collected: 06/18/21 17:35

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW014S

Lab Sample ID: 500-201191-10

Date Collected: 06/18/21 17:35

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605321	06/22/21 04:31	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW015N

Lab Sample ID: 500-201191-11

Date Collected: 06/18/21 17:40

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW015N

Lab Sample ID: 500-201191-11

Date Collected: 06/18/21 17:40

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/22/21 18:09	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW016S

Lab Sample ID: 500-201191-12

Date Collected: 06/18/21 17:43

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW016S

Lab Sample ID: 500-201191-12

Date Collected: 06/18/21 17:43

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605321	06/22/21 05:02	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW017N

Lab Sample ID: 500-201191-13

Date Collected: 06/18/21 17:53

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW017N

Lab Sample ID: 500-201191-13

Date Collected: 06/18/21 17:53

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 74.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/22/21 18:39	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW018S

Lab Sample ID: 500-201191-14

Date Collected: 06/18/21 17:59

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW018S

Lab Sample ID: 500-201191-14

Date Collected: 06/18/21 17:59

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605321	06/22/21 05:33	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW019N

Lab Sample ID: 500-201191-15

Date Collected: 06/18/21 18:05

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW019N

Lab Sample ID: 500-201191-15

Date Collected: 06/18/21 18:05

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605437	06/22/21 14:08	EF	TAL CHI

Client Sample ID: ED-R1SD-029

Lab Sample ID: 500-201191-17

Date Collected: 06/21/21 13:16

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-029

Lab Sample ID: 500-201191-17

Date Collected: 06/21/21 13:16

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605437	06/22/21 14:24	EF	TAL CHI

Client Sample ID: ED-R1SD-030

Lab Sample ID: 500-201191-18

Date Collected: 06/21/21 13:22

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-030

Lab Sample ID: 500-201191-18

Date Collected: 06/21/21 13:22

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605321	06/22/21 06:19	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW022S

Lab Sample ID: 500-201191-21

Date Collected: 06/21/21 13:30

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW022S

Lab Sample ID: 500-201191-21

Date Collected: 06/21/21 13:30

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605321	06/22/21 07:05	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW023N

Lab Sample ID: 500-201191-22

Date Collected: 06/21/21 13:37

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605348	06/22/21 06:47	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Client Sample ID: ED-R1SD-SW023N

Lab Sample ID: 500-201191-22

Date Collected: 06/21/21 13:37

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.4

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			605355	06/22/21 06:32	CLL	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/22/21 20:12	PJ1	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins | Environment Testing
America
500-200-201191

Client Information Client Contact: Garrett Welch Company: Civil & Environmental Consultants Inc. Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State Zip: TN 37920 Phone: 865-340-4914(Tel) Email: gwelch@cecinc.com Project Name:		Sampler: G. Welch Phone: 865-440-1655 PWSID:		Lab PM: Kintz Robin M E-Mail: Robin.Kintz@Eurofinset.com State of Origin: IN		Carrier Tracking No(s): COC No: 500-92364-41159 1 Page: 1 of 1 - 1 of 3 Job #: CAW 6/18/21	
Due Date Requested: 29 HOUR RUSH TAT Requested (days): Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: Purchase Order Requested: <input type="checkbox"/> Yes <input type="checkbox"/> No WO #:		Analysis Requested					
Project #: 50019063 SSOW#:		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No):		Total Number of Containers:		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:	
Site: Arconic - Elliott Ditch		Sample Identification		Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)		Special Instructions/Note	
Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Preservation Code:	
ED-RISD-021		6/18/21 1640		C S		X	
ED-RISD-DWPZ		6/18/21		C S		X	
ED-RISD-022		6/18/21 1647		C S		X	
ED-RISD-023		6/18/21 1657		C S		X	
ED-RISD-024		6/18/21 1705		C S		X	
ED-RISD-025		6/18/21 1712		C S		X	
ED-RISD-026		6/18/21 1720		C S		X	
ED-RISD-027		6/18/21 1725		C S		X	
ED-RISD-028		6/18/21 1730		C S		X	
ED-RISD-SW014S		6/18/21 1735		C S		X	
ED-RISD-SW015A		6/18/21 1740		C S		X	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Other (specify)				Special Instructions/QC Requirements			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: [Signature]		Date/Time: 6/21/21 1500		Company:		Received by: [Signature]	
Relinquished by: [Signature]		Date/Time: 6/21/21 1615		Company: EA		Received by: [Signature]	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 5.9-75.6			

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America
 500-201191

Client Information		Sampler: G. Welch		Lab PM: Kintz Robin M		Carrier Tracking No(s)		COC No: 500-92364-41159 1	
Client Contact: Garrett Welch		Phone: 865-440-1655		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: TN		Page: Page 1 of 3	
Company: Civil & Environmental Consultants Inc				PWSID		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		TAT Requested (days): 24 HOUR RUSH		Job #: GAW 6/18/21		Preservation Codes	
City: Knoxville		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		PO #:		A HCL		M Hexane	
State Zip: TN 37920		Purchase Order Requested		WO #:		B NaOH		N None	
Phone: 865-340-4914(Tel)		Project #: 50019063		Project Name: Arcenic - Elliott Ditch		C Zn Acetate		O AsNaO2	
Email: gwelch@cecinc.com		SSOW#:		Site		D Nitric Acid		P Na2O4S	
Project Name: Arcenic - Elliott Ditch		Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
Site		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	
		Preservation Code:		100-100-Priority Pollutant/PCB's GAW 6/18/21		100-100-Oil and Grease GAW 6/18/21		100-100-TSS GAW 6/18/21	
								8082A-PCBS	
								Special Instructions/Note	
12		ED-RISD-SW016S		6/18/21		1743		C S	
13		ED-RISD-SW017N		6/18/21		1753		C S	
14		ED-RISD-SW018S		6/18/21		1759		C S	
15		ED-RISD-SW019A		6/18/21		1865		C S	
16		ED-RISD-EB3		6/18/21		1835		G W	
17		ED-RISD-029		6/21/21		1316		C S	
18		ED-RISD-030		6/21/21		1322		C S	
19		ED-RISD-031		6/21/21		1327		C S	
20		ED-RISD-032		6/21/21		1330		C S	
21		ED-RISD-SW022S		6/21/21		1330		C S	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by			Date		Time		Method of Shipment		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/21/21 1500		Company: EVA		Received by: <i>[Signature]</i> Date/Time: 6/21/21 1500 Company: EVA		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/24/21 1615		Company: EVA		Received by: <i>[Signature]</i> Date/Time: 6/24/21 1615 Company: EVA		
Relinquished by:			Date/Time:		Company:		Received by: Date/Time: Company:		
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks					

Chain of Custody Record 457445 eurofins

Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program: DW NPDES RCRA Other

Client Contact		Project Manager MARETT WELCH		Site Contact ISORGENSIA		Date		COC No			
Company Name LEC		Tel/Email G.WELCH@LECINC.CO		Lab Contact		Carrier		3 of 3 COCs			
Address 2704 CHEROKEE FARMWAY		Analysis Turnaround Time <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____ <input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day 24H									
City/State/Zip KNOXVILLE TN 37420											
Phone 865-348-4414		Project Name		Filtered Sample (Y / N) Perform MS / MSD (Y / N) 80824 PEBs		Sampler		For Lab Use Only			
Fax		Site ARCONEC - ELIJAH DITCH				Walk-in Client		Lab Sampling		Job / SDG No	
P O #		P O #				500-201191		Sample Specific Notes			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.					
22 ED-RISD-SW023N		6/21/21	1337	G	S	1	X				
23 ED-RISD-SW024S		↓	1345	G	S	1	X				
24 ED-RISD-SW025N		↓	1347	G	S	1	X				
25 ED-RISD-EB4		↓	1430	G	W	2	X				
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____											
Possible Hazard Identification Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months						
Special Instructions/QC Requirements & Comments											
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd _____ Corr'd _____		Therm ID No _____					
Relinquished by [Signature]		Company CEC		Date/Time 6/21/21 1500		Received by [Signature]		Company ETA			
Relinquished by [Signature]		Company ETA		Date/Time 6/21/21 1615		Received by [Signature]		Company _____			
Relinquished by [Signature]		Company _____		Date/Time _____		Received in Laboratory by [Signature]		Company ETA			

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201191-1

Login Number: 201191

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201191-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/23/2021 2:21:22 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Job ID: 500-201191-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201191-2

Comments

No additional comments.

Receipt

The samples were received on 6/21/2021 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6° C.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following sample was outside control limits: ED-R1SD-EB3 (500-201191-16). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Client Sample ID: ED-R1SD-EB3

Lab Sample ID: 500-201191-16

No Detections.

Client Sample ID: ED-R1SD-EB4

Lab Sample ID: 500-201191-25

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201191-16	ED-R1SD-EB3	Water	06/18/21 18:35	06/21/21 16:15	
500-201191-25	ED-R1SD-EB4	Water	06/21/21 14:30	06/21/21 16:15	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Client Sample ID: ED-R1SD-EB3

Lab Sample ID: 500-201191-16

Date Collected: 06/18/21 18:35

Matrix: Water

Date Received: 06/21/21 16:15

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 10:04	1
PCB-1221	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 10:04	1
PCB-1232	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 10:04	1
PCB-1242	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 10:04	1
PCB-1248	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 10:04	1
PCB-1254	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 10:04	1
PCB-1260	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 10:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	97		30 - 120	06/21/21 20:39	06/22/21 10:04	1
DCB Decachlorobiphenyl	29	S1-	30 - 140	06/21/21 20:39	06/22/21 10:04	1

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Client Sample ID: ED-R1SD-EB4

Lab Sample ID: 500-201191-25

Date Collected: 06/21/21 14:30

Matrix: Water

Date Received: 06/21/21 16:15

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00038		0.00038		mg/L		06/21/21 20:39	06/22/21 10:21	1
PCB-1221	<0.00038		0.00038		mg/L		06/21/21 20:39	06/22/21 10:21	1
PCB-1232	<0.00038		0.00038		mg/L		06/21/21 20:39	06/22/21 10:21	1
PCB-1242	<0.00038		0.00038		mg/L		06/21/21 20:39	06/22/21 10:21	1
PCB-1248	<0.00038		0.00038		mg/L		06/21/21 20:39	06/22/21 10:21	1
PCB-1254	<0.00038		0.00038		mg/L		06/21/21 20:39	06/22/21 10:21	1
PCB-1260	<0.00038		0.00038		mg/L		06/21/21 20:39	06/22/21 10:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		30 - 120	06/21/21 20:39	06/22/21 10:21	1
DCB Decachlorobiphenyl	37		30 - 140	06/21/21 20:39	06/22/21 10:21	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

GC Semi VOA

Prep Batch: 605335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-16	ED-R1SD-EB3	Total/NA	Water	3510C	
500-201191-25	ED-R1SD-EB4	Total/NA	Water	3510C	
MB 500-605335/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-605335/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-605335/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 605403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-16	ED-R1SD-EB3	Total/NA	Water	8082A	605335
500-201191-25	ED-R1SD-EB4	Total/NA	Water	8082A	605335
MB 500-605335/1-A	Method Blank	Total/NA	Water	8082A	605335
LCS 500-605335/2-A	Lab Control Sample	Total/NA	Water	8082A	605335
LCSD 500-605335/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	605335

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201191-16	ED-R1SD-EB3	97	29 S1-
500-201191-25	ED-R1SD-EB4	88	37
LCS 500-605335/2-A	Lab Control Sample	98	104
LCSD 500-605335/3-A	Lab Control Sample Dup	108	110
MB 500-605335/1-A	Method Blank	111	118

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-605335/1-A
Matrix: Water
Analysis Batch: 605403

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605335

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 08:44	1
PCB-1221	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 08:44	1
PCB-1232	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 08:44	1
PCB-1242	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 08:44	1
PCB-1248	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 08:44	1
PCB-1254	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 08:44	1
PCB-1260	<0.00040		0.00040		mg/L		06/21/21 20:39	06/22/21 08:44	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	111		30 - 120	06/21/21 20:39	06/22/21 08:44	1
DCB Decachlorobiphenyl	118		30 - 140	06/21/21 20:39	06/22/21 08:44	1

Lab Sample ID: LCS 500-605335/2-A
Matrix: Water
Analysis Batch: 605403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605335

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00400	0.00388		mg/L		97	56 - 120
PCB-1260	0.00400	0.00430		mg/L		108	53 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	98		30 - 120
DCB Decachlorobiphenyl	104		30 - 140

Lab Sample ID: LCSD 500-605335/3-A
Matrix: Water
Analysis Batch: 605403

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 605335

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	
		Result	Qualifier					RPD	Limit
PCB-1016	0.00400	0.00424		mg/L		106	56 - 120	9	20
PCB-1260	0.00400	0.00462		mg/L		116	53 - 137	7	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	108		30 - 120
DCB Decachlorobiphenyl	110		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Client Sample ID: ED-R1SD-EB3

Lab Sample ID: 500-201191-16

Date Collected: 06/18/21 18:35

Matrix: Water

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			605335	06/21/21 20:39	JP1	TAL CHI
Total/NA	Analysis	8082A		1	605403	06/22/21 10:04	EF	TAL CHI

Client Sample ID: ED-R1SD-EB4

Lab Sample ID: 500-201191-25

Date Collected: 06/21/21 14:30

Matrix: Water

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			605335	06/21/21 20:39	JP1	TAL CHI
Total/NA	Analysis	8082A		1	605403	06/22/21 10:21	EF	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing
 America

500-200-201191

Client Information		Sampler: <u>G. Welch</u>		Lab PM: Kintz Robin M		Carrier Tracking No(s)		COC No: 500-92364-41159 1			
Client Contact: Garrett Welch		Phone: <u>865-440-1655</u>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <u>IN</u>		Page <u>4 of 4</u> of <u>1 of 3</u>			
Company: Civil & Environmental Consultants Inc			PWSID			Analysis Requested			Job #: <u>CAW 6/18/21</u>		
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State Zip: TN 37920		Due Date Requested: <u>29 HOUR RUSH</u>		TAT Requested (days)		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Preservation Codes:		Other:	
Phone: 865-340-4914 (Tel) Email: gwelch@cecinc.com		Project #: 50019063		Purchase Order Requested		WO #		A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)			
Project Name:		Project #		SSOW#:		Site: <u>Arconic - Elliot Ditch</u>		Field Filtered Sample (Yes or No)		Total Number of Containers	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wastelol, BT=Tissue, A=Air)		Special Instructions/Note	
1 ED-RISD-021		6/18/21		1640		C S					
2 ED-RISD-DWP2		6/18/21				C S					
3 ED-RISD-022		6/18/21		1647		C S		X			
4 ED-RISD-023		6/18/21		1657		C S					
5 ED-RISD-024		6/18/21		1705		C S					
6 ED-RISD-025		6/18/21		1712		C S					
7 ED-RISD-026		6/18/21		1720		C S					
8 ED-RISD-027		6/18/21		1725		C S					
9 ED-RISD-028		6/18/21		1730		C S					
10 ED-RISD-SW014S		6/18/21		1735		C S					
11 ED-RISD-SW015A		6/18/21		1740		C S					
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date			Time			Method of Shipment:		
Relinquished by: <u>[Signature]</u>			Date/Time: <u>6/21/21 1500</u>			Company: <u>EVA</u>			Received by: <u>[Signature]</u>		
Relinquished by: <u>[Signature]</u>			Date/Time: <u>6/21/21 1615</u>			Company: <u>EVA</u>			Received by: <u>[Signature]</u>		
Relinquished by:			Date/Time:			Company:			Received by:		
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No			Cooler Temperature(s) °C and Other Remarks: <u>5.9-75.6</u>					

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America
 500-201191

Client Information		Sampler: G. Welch		Lab PM: Kintz Robin M		Carrier Tracking No(s)		COC No: 500-92364-41159 1			
Client Contact: Garrett Welch		Phone: 865-440-1655		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: TN		Page: Page 1 of 3			
Company: Civil & Environmental Consultants Inc		PWSID		Analysis Requested						Job #: GAW 6/18/21	
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		Perform MS/MSD (Yes or No) <input type="checkbox"/> Field Filtered Sample (Yes or No) <input type="checkbox"/> 900-POB - Priority Pollutant PCB's GAW 6/18/21 1004B - Oil and Grease GAW 6/18/21 26400 - TSS GAW 6/18/21 8082A - PCBs						Preservation Codes	
City: Knoxville		TAT Requested (days): 24 HOUR RUSH								Preservation Codes	
State/Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								A HCL M Hexane	
Phone: 865-340-4914(Tel)		PO #: _____								B NaOH N None	
Email: gwelch@cecinc.com		Purchase Order Requested								C Zn Acetate O AsNaO2	
Project Name: Arcenic - Elliott Ditch		WO #: _____		D Nitric Acid P Na2O4S							
Site		Project #: 50019063		E NaHSO4 Q Na2SO3							
		SSOW#: _____		F MeOH R Na2S2O3							
				G Amchlor S H2SO4							
				H Ascorbic Acid T TSP Dodecahydrate							
				I Ice U Acetone							
				J DI Water V MCAA							
				K EDTA W pH 4-5							
				L EDA Z other (specify)							
				Other: _____							
				Total Number of Containers							
				Special Instructions/Note							
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:	
12 ED-RISD-SW016S		6/18/21		1743		C		S			
13 ED-RISD-SW017N		6/18/21		1753		C		S			
14 ED-RISD-SW018S		6/18/21		1759		C		S			
15 ED-RISD-SW019A		6/18/21		1805		C		S			
16 ED-RISD-EB3		6/18/21		1835		G		W			
17 ED-RISD-029		6/21/21		1316		C		S			
18 ED-RISD-030		6/21/21		1322		C		S			
19 ED-RISD-031		6/21/21		1327		C		S			
20 ED-RISD-032		6/21/21		1330		C		S			
21 ED-RISD-SW022S		6/21/21		1330		C		S			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date			Time			Method of Shipment		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/21/21 1500			Company: EVA			Received by: <i>[Signature]</i>		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/24/21 1615			Company: EVA			Received by: <i>[Signature]</i>		
Relinquished by: _____			Date/Time: _____			Company: _____			Received by: _____		
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks							

Chain of Custody Record 457445

Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program: DW NPDES RCRA Other

Client Contact		Project Manager MARETT WELCH		Site Contact ISORGENSIA		Date		COC No		
Company Name CEC		Tel/Email G.WELCH@CECINC.COM		Lab Contact		Carrier		3 of 3 COCs		
Address 2704 CHEROKEE FARMWAY		Analysis Turnaround Time		Filtered Sample (Y / N) Perform MS / MSD (Y / N) 80824 PEBs				Sampler For Lab Use Only Walk-in Client Lab Sampling Job / SDG No 500-201191		
City/State/Zip KNOXVILLE TN 37420		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below _____								
Phone 865-346-4414		<input type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input checked="" type="checkbox"/> 1 day 24H								
Fax										
Project Name										
Site ARCONEC - ELIJAH DITCH										
P O #										
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes			
22 ED-RISD-SW023N		6/21/21	1337	L	S	1	X			
23 ED-RISD-SW024S		↓	1345	L	S	1	X			
24 ED-RISD-SW025N		↓	1347	L	S	1	X			
25 ED-RISD-EB4		↓	1430	L	W	2	X			
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other										
Possible Hazard Identification Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown						<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months				
Special Instructions/QC Requirements & Comments										
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temp (°C) Obs'd _____ Corr'd _____		Therm ID No _____				
Relinquished by [Signature]		Company CEC		Date/Time 6/21/21 1500		Received by [Signature]		Company EPA Date/Time 6/21/21 1500		
Relinquished by [Signature]		Company EPA		Date/Time 6/21/21 1615		Received by		Company		
Relinquished by		Company		Date/Time		Received in Laboratory by [Signature]		Company EPA Date/Time 6/21/21 3:16 PM		

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201191-2

Login Number: 201191

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201191-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/23/2021 2:20:35 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Job ID: 500-201191-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201191-3

Comments

No additional comments.

Receipt

The samples were received on 6/21/2021 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.6° C.

GC Semi VOA

Method 8082A: DCB Decachlorobiphenyl Surrogate recovery for the following sample was outside control limits: ED-R1SD-SW024S (500-201191-23). Tetrachloro-m-xylene Surrogate was within the control limits; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The method blank (MB) was slightly outside of the control limits for DCB Decachlorobiphenyl for preparation batch 500-605355 and analytical batch 500-605551 . The MB did not contain any target analytes ; therefore the data has been reported. (MB 500-605355/1-A)

Method 8082A: The method blank (MB) was slightly outside of the control limits for DCB Decachlorobiphenyl for preparation batch 500-605355 and analytical batch 500-605551 . The MB did not contain any target analytes ; therefore the data has been reported. (MB 500-605355/1-A)

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-031 (500-201191-19) and ED-R1SD-SW025N (500-201191-24).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: (500-201191-A-1-A), (500-201191-A-1-B MS) and (500-201191-A-1-C MSD). The reagent lot number used was: Z079073.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-032 (500-201191-20).

Method 8082A: The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-032 (500-201191-20). The reagent lot number used was: Z07G073.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Client Sample ID: ED-R1SD-031

Lab Sample ID: 500-201191-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	5.5		2.0		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-032

Lab Sample ID: 500-201191-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.87		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW024S

Lab Sample ID: 500-201191-23

No Detections.

Client Sample ID: ED-R1SD-SW025N

Lab Sample ID: 500-201191-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.93		0.40		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201191-19	ED-R1SD-031	Solid	06/21/21 13:27	06/21/21 16:15	
500-201191-20	ED-R1SD-032	Solid	06/21/21 13:36	06/21/21 16:15	
500-201191-23	ED-R1SD-SW024S	Solid	06/21/21 13:45	06/21/21 16:15	
500-201191-24	ED-R1SD-SW025N	Solid	06/21/21 13:47	06/21/21 16:15	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Client Sample ID: ED-R1SD-031

Lab Sample ID: 500-201191-19

Date Collected: 06/21/21 13:27

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 80.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 22:53	100
PCB-1221	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 22:53	100
PCB-1232	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 22:53	100
PCB-1242	5.5		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 22:53	100
PCB-1248	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 22:53	100
PCB-1254	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 22:53	100
PCB-1260	<2.0		2.0		mg/Kg	☼	06/21/21 17:00	06/22/21 22:53	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	73		49 - 129	06/21/21 17:00	06/22/21 22:53	100
<i>DCB Decachlorobiphenyl</i>	56		37 - 121	06/21/21 17:00	06/22/21 22:53	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Client Sample ID: ED-R1SD-032

Lab Sample ID: 500-201191-20

Date Collected: 06/21/21 13:36

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:50	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:50	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:50	20
PCB-1242	0.87		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:50	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:50	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:50	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/21/21 17:00	06/22/21 06:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	06/21/21 17:00	06/22/21 06:50	20
DCB Decachlorobiphenyl	83		37 - 121	06/21/21 17:00	06/22/21 06:50	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Client Sample ID: ED-R1SD-SW024S

Lab Sample ID: 500-201191-23

Date Collected: 06/21/21 13:45

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:27	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:27	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:27	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:27	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:27	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:27	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/22/21 06:32	06/22/21 20:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		49 - 129	06/22/21 06:32	06/22/21 20:27	20
DCB Decachlorobiphenyl	122	S1+	37 - 121	06/22/21 06:32	06/22/21 20:27	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Client Sample ID: ED-R1SD-SW025N

Lab Sample ID: 500-201191-24

Date Collected: 06/21/21 13:47

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 81.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/22/21 06:32	06/22/21 20:43	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/22/21 06:32	06/22/21 20:43	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/22/21 06:32	06/22/21 20:43	20
PCB-1242	0.93		0.40		mg/Kg	☼	06/22/21 06:32	06/22/21 20:43	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/22/21 06:32	06/22/21 20:43	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/22/21 06:32	06/22/21 20:43	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/22/21 06:32	06/22/21 20:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		49 - 129	06/22/21 06:32	06/22/21 20:43	20
DCB Decachlorobiphenyl	104		37 - 121	06/22/21 06:32	06/22/21 20:43	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

GC Semi VOA

Prep Batch: 605310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-19	ED-R1SD-031	Total/NA	Solid	3541	
500-201191-20	ED-R1SD-032	Total/NA	Solid	3541	
MB 500-605310/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605310/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 605321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-20	ED-R1SD-032	Total/NA	Solid	8082A	605310
MB 500-605310/1-A	Method Blank	Total/NA	Solid	8082A	605310
LCS 500-605310/2-A	Lab Control Sample	Total/NA	Solid	8082A	605310

Prep Batch: 605355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-23	ED-R1SD-SW024S	Total/NA	Solid	3541	
500-201191-24	ED-R1SD-SW025N	Total/NA	Solid	3541	
MB 500-605355/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605355/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 605437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-605310/1-A	Method Blank	Total/NA	Solid	8082A	605310

Analysis Batch: 605551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-19	ED-R1SD-031	Total/NA	Solid	8082A	605310
500-201191-23	ED-R1SD-SW024S	Total/NA	Solid	8082A	605355
500-201191-24	ED-R1SD-SW025N	Total/NA	Solid	8082A	605355
MB 500-605355/1-A	Method Blank	Total/NA	Solid	8082A	605355
LCS 500-605355/2-A	Lab Control Sample	Total/NA	Solid	8082A	605355

General Chemistry

Analysis Batch: 605340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-19	ED-R1SD-031	Total/NA	Solid	Moisture	
500-201191-20	ED-R1SD-032	Total/NA	Solid	Moisture	

Analysis Batch: 605348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201191-23	ED-R1SD-SW024S	Total/NA	Solid	Moisture	
500-201191-24	ED-R1SD-SW025N	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (49-129)	DCBP1 (37-121)
500-201191-19	ED-R1SD-031	73	56
500-201191-23	ED-R1SD-SW024S	78	122 S1+
500-201191-24	ED-R1SD-SW025N	82	104
LCS 500-605355/2-A	Lab Control Sample	79	104
MB 500-605310/1-A	Method Blank	94	93
MB 500-605355/1-A	Method Blank	105	145 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (49-129)	DCBP2 (37-121)
500-201191-20	ED-R1SD-032	70	83
LCS 500-605310/2-A	Lab Control Sample	81	65
MB 500-605310/1-A	Method Blank	91	67

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-605310/1-A
Matrix: Solid
Analysis Batch: 605321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605310

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1221	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1232	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1242	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1248	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1254	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
PCB-1260	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 01:10	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		49 - 129				06/21/21 17:00	06/22/21 01:10	20
DCB Decachlorobiphenyl	67		37 - 121				06/21/21 17:00	06/22/21 01:10	20

Lab Sample ID: MB 500-605310/1-A
Matrix: Solid
Analysis Batch: 605437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605310

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1221	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1232	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1242	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1248	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1254	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
PCB-1260	<0.33		0.33		mg/Kg		06/21/21 17:00	06/22/21 10:17	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		49 - 129				06/21/21 17:00	06/22/21 10:17	20
DCB Decachlorobiphenyl	93		37 - 121				06/21/21 17:00	06/22/21 10:17	20

Lab Sample ID: LCS 500-605310/2-A
Matrix: Solid
Analysis Batch: 605321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605310

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
PCB-1016	1.67	1.36		mg/Kg		82		57 - 120
PCB-1260	1.67	1.25		mg/Kg		75		61 - 125
Surrogate	%Recovery	Qualifier	Limits					
Tetrachloro-m-xylene	81		49 - 129					
DCB Decachlorobiphenyl	65		37 - 121					

Lab Sample ID: MB 500-605355/1-A
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605355

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	20
PCB-1221	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	20

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 500-605355/1-A
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605355

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	20
PCB-1242	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	20
PCB-1248	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	20
PCB-1254	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	20
PCB-1260	<0.33		0.33		mg/Kg		06/22/21 06:32	06/22/21 18:55	20

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	105		49 - 129	06/22/21 06:32	06/22/21 18:55	20
<i>DCB Decachlorobiphenyl</i>	145	S1+	37 - 121	06/22/21 06:32	06/22/21 18:55	20

Lab Sample ID: LCS 500-605355/2-A
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605355

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	1.67	1.45		mg/Kg		87	57 - 120
PCB-1260	1.67	1.49		mg/Kg		89	61 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>Tetrachloro-m-xylene</i>	79		49 - 129
<i>DCB Decachlorobiphenyl</i>	104		37 - 121

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Client Sample ID: ED-R1SD-031

Lab Sample ID: 500-201191-19

Date Collected: 06/21/21 13:27

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-031

Lab Sample ID: 500-201191-19

Date Collected: 06/21/21 13:27

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		100	605551	06/22/21 22:53	PJ1	TAL CHI

Client Sample ID: ED-R1SD-032

Lab Sample ID: 500-201191-20

Date Collected: 06/21/21 13:36

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605340	06/22/21 06:21	LWN	TAL CHI

Client Sample ID: ED-R1SD-032

Lab Sample ID: 500-201191-20

Date Collected: 06/21/21 13:36

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605310	06/21/21 17:00	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605321	06/22/21 06:50	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW024S

Lab Sample ID: 500-201191-23

Date Collected: 06/21/21 13:45

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605348	06/22/21 06:47	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW024S

Lab Sample ID: 500-201191-23

Date Collected: 06/21/21 13:45

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605355	06/22/21 06:32	CLL	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/22/21 20:27	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW025N

Lab Sample ID: 500-201191-24

Date Collected: 06/21/21 13:47

Matrix: Solid

Date Received: 06/21/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605348	06/22/21 06:47	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Client Sample ID: ED-R1SD-SW025N

Lab Sample ID: 500-201191-24

Date Collected: 06/21/21 13:47

Matrix: Solid

Date Received: 06/21/21 16:15

Percent Solids: 81.9

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			605355	06/22/21 06:32	CLL	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/22/21 20:43	PJ1	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201191-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America
 500-200-201191

Client Information Client Contact: Garrett Welch		Sampler: G. Welch Phone: 865-440-1655		Lab PM: Kintz Robin M E-Mail: Robin.Kintz@Eurofinset.com		Carrier Tracking No(s) State of Origin: IN		COC No: 500-92364-41159 1 Page 4 of 4 1 of 3					
Company: Civil & Environmental Consultants Inc		PWSID		Analysis Requested						Job #: CAW 6/18/21			
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State Zip: TN 37920 Phone: 865-340-4914 (Tel) Email: gwelch@cecinc.com Project Name:		Due Date Requested: 29 HOUR RUSH TAT Requested (days)		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		PO #: Purchase Order Requested		WO #:		Project #: 50019063 SSOW#:		Preservation Codes: A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)	
Site: ARCONIC - ELIOT DITCH		Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefl, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers		Special Instructions/Note	
		Preservation Code:											
1 ED-RISD-021		6/18/21		1640		C S							
2 ED-RISD-DWP2		6/18/21		/		C S							
3 ED-RISD-022		6/18/21		1647		C S		X					
4 ED-RISD-023		6/18/21		1657		C S							
5 ED-RISD-024		6/18/21		1705		C S							
6 ED-RISD-025		6/18/21		1712		C S							
7 ED-RISD-026		6/18/21		1720		C S							
8 ED-RISD-027		6/18/21		1725		C S							
9 ED-RISD-028		6/18/21		1730		C S							
10 ED-RISD-SW014S		6/18/21		1735		C S							
11 ED-RISD-SW015N		6/18/21		1740		C S							
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> IV Other (specify)						Special Instructions/QC Requirements							
Empty Kit Relinquished by		Date		Time		Method of Shipment:							
Relinquished by: [Signature]		Date/Time: 6/18/21 1500		Company: EA		Received by: [Signature]		Date/Time: 6/21/21 1506		Company: EA			
Relinquished by: P. New		Date/Time: 6/21/21 1615		Company: EA		Received by: [Signature]		Date/Time: 6/21/21 1615		Company: EA			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 5.9-75.6									

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America
500-201191

Client Information		Sampler: G. Welch		Lab PM: Kintz Robin M		Carrier Tracking No(s)		COC No: 500-92364-41159 1											
Client Contact: Garrett Welch		Phone: 865-440-1655		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: IN		Page: Page 1 of 3											
Company: Civil & Environmental Consultants Inc				PWSID				Analysis Requested											
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested				Job #: GAW 6/18/21											
City: Knoxville				TAT Requested (days): 24 HOUR RUSH				Preservation Codes: A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlora S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:											
State Zip: TN 37920				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No															
Phone: 865-340-4914(Tel)				PO #:															
Email: gwelch@cecinc.com				Purchase Order Requested															
Project Name: Arcenic - Elliott Ditch				WO #:															
Site				Project #: 50019063				SSOW#:											
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers		Special Instructions/Note			
ED-RISD-SW016S		6/18/21		1743		C S		S						1					
ED-RISD-SW017N		6/18/21		1753		C S		S						1					
ED-RISD-SW018S		6/18/21		1759		C S		S						1					
ED-RISD-SW019A		6/18/21		1805		C S		S						1					
ED-RISD-EB3		6/18/21		1835		G W		W						2					
ED-RISD-ET GAW 6/18/21																			
ED-RISD-029		6/21/21		1316		C S		S											
ED-RISD-030		6/21/21		1322		C S		S											
ED-RISD-031		6/21/21		1327		C S		S											
ED-RISD-032		6/21/21		1330		C S		S											
ED-RISD-SW022S		6/21/21		1330		C S		S											
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)										Special Instructions/QC Requirements									
Empty Kit Relinquished by				Date				Time				Method of Shipment							
Relinquished by: <i>[Signature]</i>				Date/Time: 6/21/21 1500				Company: ECA				Received by: <i>[Signature]</i>							
Relinquished by: <i>[Signature]</i>				Date/Time: 6/24/21 1615				Company: ECA				Received by: <i>[Signature]</i>							
Relinquished by:				Date/Time:				Company:				Received by:							
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks															

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Chain of Custody Record 457445 eurofins

Environment Testing
TestAmerica

TAL-8210

Address _____

Regulatory Program: DW NPDES RCRA Other

Client Contact		Project Manager <u>MARETT WELCH</u>		Site Contact <u>ISORGENSIA</u>		Date _____		COC No _____			
Company Name <u>LEC</u>		Tel/Email <u>GWELCH@LECI.NC.CO</u>		Lab Contact _____		Carrier _____		3 of 3 COCs			
Address <u>2704 CHEROKEE FARMWAY</u>		Analysis Turnaround Time									
City/State/Zip <u>KNOXVILLE TN 37420</u>		<input type="checkbox"/> CALENDAR DAYS		<input type="checkbox"/> WORKING DAYS		Filtered Sample (Y / N) Perform MS / MSD (Y / N) <u>80824 PEBs</u>		Sampler _____ For Lab Use Only Walk-in Client _____ Lab Sampling _____ Job / SDG No <u>500-201191</u>			
Phone <u>865-346-4414</u>		TAT if different from Below _____									
Fax _____		<input type="checkbox"/> 2 weeks		<input type="checkbox"/> 1 week							
Project Name _____		<input type="checkbox"/> 2 days		<input checked="" type="checkbox"/> 1 day <u>24H</u>							
Site <u>ARCONEC - ELIJAH DITCH</u>		P O # _____									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes				
<u>ED-R1SD-SW023N</u>		<u>6/21/21</u>	<u>1337</u>	<u>L</u>	<u>S</u>	<u>1</u>	<u>X</u>				
<u>ED-R1SD-SW024S</u>		<u>↓</u>	<u>1345</u>	<u>L</u>	<u>S</u>	<u>1</u>	<u>X</u>				
<u>ED-R1SD-SW025N</u>		<u>↓</u>	<u>1347</u>	<u>L</u>	<u>S</u>	<u>1</u>	<u>X</u>				
<u>ED-R1SD-EB4</u>		<u>↓</u>	<u>1430</u>	<u>L</u>	<u>W</u>	<u>2</u>	<u>X</u>				
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____		Possible Hazard Identification									
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		<input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months									
Special Instructions/QC Requirements & Comments											
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd _____ Corr'd _____		Therm ID No _____					
Relinquished by <u>[Signature]</u>		Company <u>CEC</u>		Date/Time <u>6/21/21 1500</u>		Received by <u>[Signature]</u>		Company <u>EPA</u>			
Relinquished by <u>[Signature]</u>		Company <u>EPA</u>		Date/Time <u>6/21/21 1615</u>		Received by _____		Company _____			
Relinquished by _____		Company _____		Date/Time _____		Received in Laboratory by <u>[Signature]</u>		Company <u>EPA</u>			

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201191-3

Login Number: 201191

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-201266-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/23/2021 3:13:02 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Job ID: 500-201266-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201266-1

Comments

No additional comments.

Receipt

The samples were received on 6/22/2021 4:02 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.1° C.

GC Semi VOA

Method 8082A: The requirement for a MS/MSD was performed on a different sample than what was specified by the client. Sample -2 was requested but sample -4 was spiked. ED-R1SD-SW021N (500-201266-2), ED-R1SD-SW021N (500-201266-2[MS]), ED-R1SD-SW021N (500-201266-2[MSD]) and ED-R1SD-034 (500-201266-4)

Method 8082A: The following samples were diluted due to the nature of the sample matrix: ED-R1SD-SW020S (500-201266-1), ED-R1SD-SW021N (500-201266-2), ED-R1SD-SW021N (500-201266-2[MS]), ED-R1SD-SW021N (500-201266-2[MSD]), ED-R1SD-033 (500-201266-3), ED-R1SD-034 (500-201266-4), ED-R1SD-035 (500-201266-5), ED-R1SD-036 (500-201266-6), ED-R1SD-037 (500-201266-7), ED-R1SD-038 (500-201266-8), ED-R1SD-039 (500-201266-9), ED-R1SD-SW026S (500-201266-10), ED-R1SD-SW027N (500-201266-11), ED-R1SD-SW028S (500-201266-12), ED-R1SD-SW029N (500-201266-13), ED-R1SD-SW030S (500-201266-14), ED-R1SD-SW031N (500-201266-15) and ED-R1SD-SWDUP2 (500-201266-17). Elevated reporting limits (RLs) are provided.

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW021N (500-201266-2), ED-R1SD-038 (500-201266-8), ED-R1SD-SW027N (500-201266-11), ED-R1SD-SW029N (500-201266-13) and ED-R1SD-SW031N (500-201266-15). The reagent lot number used was: Z07G073.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: ED-R1SD-SW021N (500-201266-2), ED-R1SD-038 (500-201266-8), ED-R1SD-SW027N (500-201266-11), ED-R1SD-SW029N (500-201266-13) and ED-R1SD-SW031N (500-201266-15).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: ED-R1SD-SW020S (500-201266-1), ED-R1SD-037 (500-201266-7), ED-R1SD-039 (500-201266-9), ED-R1SD-SW030S (500-201266-14) and ED-R1SD-SWDUP2 (500-201266-17).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW020S

Lab Sample ID: 500-201266-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.4		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW021N

Lab Sample ID: 500-201266-2

No Detections.

Client Sample ID: ED-R1SD-033

Lab Sample ID: 500-201266-3

No Detections.

Client Sample ID: ED-R1SD-034

Lab Sample ID: 500-201266-4

No Detections.

Client Sample ID: ED-R1SD-035

Lab Sample ID: 500-201266-5

No Detections.

Client Sample ID: ED-R1SD-036

Lab Sample ID: 500-201266-6

No Detections.

Client Sample ID: ED-R1SD-037

Lab Sample ID: 500-201266-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.78		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-038

Lab Sample ID: 500-201266-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	6.1		1.8		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-039

Lab Sample ID: 500-201266-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	4.6		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW026S

Lab Sample ID: 500-201266-10

No Detections.

Client Sample ID: ED-R1SD-SW027N

Lab Sample ID: 500-201266-11

No Detections.

Client Sample ID: ED-R1SD-SW028S

Lab Sample ID: 500-201266-12

No Detections.

Client Sample ID: ED-R1SD-SW029N

Lab Sample ID: 500-201266-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.9		0.39		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	1.8		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW030S

Lab Sample ID: 500-201266-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.7		0.38		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW031N

Lab Sample ID: 500-201266-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	7.6		3.7		mg/Kg	200	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SWDUP2

Lab Sample ID: 500-201266-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.8		0.40		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201266-1	ED-R1SD-SW020S	Solid	06/22/21 12:40	06/22/21 16:02	
500-201266-2	ED-R1SD-SW021N	Solid	06/22/21 12:42	06/22/21 16:02	
500-201266-3	ED-R1SD-033	Solid	06/22/21 12:46	06/22/21 16:02	
500-201266-4	ED-R1SD-034	Solid	06/22/21 12:51	06/22/21 16:02	
500-201266-5	ED-R1SD-035	Solid	06/22/21 12:55	06/22/21 16:02	
500-201266-6	ED-R1SD-036	Solid	06/22/21 13:00	06/22/21 16:02	
500-201266-7	ED-R1SD-037	Solid	06/22/21 13:03	06/22/21 16:02	
500-201266-8	ED-R1SD-038	Solid	06/22/21 13:11	06/22/21 16:02	
500-201266-9	ED-R1SD-039	Solid	06/22/21 13:15	06/22/21 16:02	
500-201266-10	ED-R1SD-SW026S	Solid	06/22/21 13:17	06/22/21 16:02	
500-201266-11	ED-R1SD-SW027N	Solid	06/22/21 13:18	06/22/21 16:02	
500-201266-12	ED-R1SD-SW028S	Solid	06/22/21 13:26	06/22/21 16:02	
500-201266-13	ED-R1SD-SW029N	Solid	06/22/21 13:27	06/22/21 16:02	
500-201266-14	ED-R1SD-SW030S	Solid	06/22/21 13:38	06/22/21 16:02	
500-201266-15	ED-R1SD-SW031N	Solid	06/22/21 13:40	06/22/21 16:02	
500-201266-17	ED-R1SD-SWDUP2	Solid	06/22/21 12:40	06/22/21 16:02	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW020S

Lab Sample ID: 500-201266-1

Date Collected: 06/22/21 12:40

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 82.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/22/21 16:38	06/23/21 01:28	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/22/21 16:38	06/23/21 01:28	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/22/21 16:38	06/23/21 01:28	20
PCB-1242	2.4		0.41		mg/Kg	☼	06/22/21 16:38	06/23/21 01:28	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/22/21 16:38	06/23/21 01:28	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/22/21 16:38	06/23/21 01:28	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/22/21 16:38	06/23/21 01:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	109		49 - 129	06/22/21 16:38	06/23/21 01:28	20
DCB Decachlorobiphenyl	85		37 - 121	06/22/21 16:38	06/23/21 01:28	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW021N

Lab Sample ID: 500-201266-2

Date Collected: 06/22/21 12:42

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 65.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.51		0.51		mg/Kg	☼	06/22/21 16:38	06/23/21 10:17	20
PCB-1221	<0.51		0.51		mg/Kg	☼	06/22/21 16:38	06/23/21 10:17	20
PCB-1232	<0.51		0.51		mg/Kg	☼	06/22/21 16:38	06/23/21 10:17	20
PCB-1242	<0.51		0.51		mg/Kg	☼	06/22/21 16:38	06/23/21 10:17	20
PCB-1248	<0.51		0.51		mg/Kg	☼	06/22/21 16:38	06/23/21 10:17	20
PCB-1254	<0.51		0.51		mg/Kg	☼	06/22/21 16:38	06/23/21 10:17	20
PCB-1260	<0.51		0.51		mg/Kg	☼	06/22/21 16:38	06/23/21 10:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	06/22/21 16:38	06/23/21 10:17	20
DCB Decachlorobiphenyl	56		37 - 121	06/22/21 16:38	06/23/21 10:17	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-033

Lab Sample ID: 500-201266-3

Date Collected: 06/22/21 12:46

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 87.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 01:58	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 01:58	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 01:58	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 01:58	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 01:58	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 01:58	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 01:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	06/22/21 16:38	06/23/21 01:58	20
DCB Decachlorobiphenyl	68		37 - 121	06/22/21 16:38	06/23/21 01:58	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-034

Lab Sample ID: 500-201266-4

Date Collected: 06/22/21 12:51

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 89.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37	F1	0.37		mg/Kg	☼	06/22/21 16:38	06/23/21 02:14	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/22/21 16:38	06/23/21 02:14	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/22/21 16:38	06/23/21 02:14	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/22/21 16:38	06/23/21 02:14	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/22/21 16:38	06/23/21 02:14	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/22/21 16:38	06/23/21 02:14	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/22/21 16:38	06/23/21 02:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	06/22/21 16:38	06/23/21 02:14	20
DCB Decachlorobiphenyl	75		37 - 121	06/22/21 16:38	06/23/21 02:14	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-035

Lab Sample ID: 500-201266-5

Date Collected: 06/22/21 12:55

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 87.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:00	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:00	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:00	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:00	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:00	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:00	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/22/21 16:38	06/23/21 03:00	20
DCB Decachlorobiphenyl	65		37 - 121	06/22/21 16:38	06/23/21 03:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-036

Lab Sample ID: 500-201266-6

Date Collected: 06/22/21 13:00

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 88.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:15	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:15	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:15	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:15	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:15	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:15	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	06/22/21 16:38	06/23/21 03:15	20
DCB Decachlorobiphenyl	64		37 - 121	06/22/21 16:38	06/23/21 03:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-037

Lab Sample ID: 500-201266-7

Date Collected: 06/22/21 13:03

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 88.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:31	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:31	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:31	20
PCB-1242	0.78		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:31	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:31	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:31	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 03:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/22/21 16:38	06/23/21 03:31	20
DCB Decachlorobiphenyl	65		37 - 121	06/22/21 16:38	06/23/21 03:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-038

Lab Sample ID: 500-201266-8

Date Collected: 06/22/21 13:11

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 89.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.8		1.8		mg/Kg	☼	06/22/21 16:38	06/23/21 10:33	100
PCB-1221	<1.8		1.8		mg/Kg	☼	06/22/21 16:38	06/23/21 10:33	100
PCB-1232	<1.8		1.8		mg/Kg	☼	06/22/21 16:38	06/23/21 10:33	100
PCB-1242	6.1		1.8		mg/Kg	☼	06/22/21 16:38	06/23/21 10:33	100
PCB-1248	<1.8		1.8		mg/Kg	☼	06/22/21 16:38	06/23/21 10:33	100
PCB-1254	<1.8		1.8		mg/Kg	☼	06/22/21 16:38	06/23/21 10:33	100
PCB-1260	<1.8		1.8		mg/Kg	☼	06/22/21 16:38	06/23/21 10:33	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	06/22/21 16:38	06/23/21 10:33	100
DCB Decachlorobiphenyl	62		37 - 121	06/22/21 16:38	06/23/21 10:33	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-039

Lab Sample ID: 500-201266-9

Date Collected: 06/22/21 13:15

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 86.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:02	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:02	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:02	20
PCB-1242	4.6		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:02	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:02	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:02	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	06/22/21 16:38	06/23/21 04:02	20
DCB Decachlorobiphenyl	76		37 - 121	06/22/21 16:38	06/23/21 04:02	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW026S

Lab Sample ID: 500-201266-10

Date Collected: 06/22/21 13:17

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 87.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:17	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:17	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:17	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:17	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:17	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:17	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		49 - 129	06/22/21 16:38	06/23/21 04:17	20
DCB Decachlorobiphenyl	83		37 - 121	06/22/21 16:38	06/23/21 04:17	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW027N

Lab Sample ID: 500-201266-11

Date Collected: 06/22/21 13:18

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 79.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	06/22/21 16:38	06/23/21 11:04	20
PCB-1221	<0.42		0.42		mg/Kg	☼	06/22/21 16:38	06/23/21 11:04	20
PCB-1232	<0.42		0.42		mg/Kg	☼	06/22/21 16:38	06/23/21 11:04	20
PCB-1242	<0.42		0.42		mg/Kg	☼	06/22/21 16:38	06/23/21 11:04	20
PCB-1248	<0.42		0.42		mg/Kg	☼	06/22/21 16:38	06/23/21 11:04	20
PCB-1254	<0.42		0.42		mg/Kg	☼	06/22/21 16:38	06/23/21 11:04	20
PCB-1260	<0.42		0.42		mg/Kg	☼	06/22/21 16:38	06/23/21 11:04	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	06/22/21 16:38	06/23/21 11:04	20
DCB Decachlorobiphenyl	61		37 - 121	06/22/21 16:38	06/23/21 11:04	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW028S

Lab Sample ID: 500-201266-12

Date Collected: 06/22/21 13:26

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 88.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:48	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:48	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:48	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:48	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:48	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:48	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 04:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		49 - 129	06/22/21 16:38	06/23/21 04:48	20
DCB Decachlorobiphenyl	85		37 - 121	06/22/21 16:38	06/23/21 04:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW029N

Lab Sample ID: 500-201266-13

Date Collected: 06/22/21 13:27

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 86.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/22/21 16:38	06/23/21 11:19	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/22/21 16:38	06/23/21 11:19	20
PCB-1232	3.9		0.39		mg/Kg	☼	06/22/21 16:38	06/23/21 11:19	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/22/21 16:38	06/23/21 11:19	20
PCB-1248	1.8		0.39		mg/Kg	☼	06/22/21 16:38	06/23/21 11:19	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/22/21 16:38	06/23/21 11:19	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/22/21 16:38	06/23/21 11:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	06/22/21 16:38	06/23/21 11:19	20
DCB Decachlorobiphenyl	59		37 - 121	06/22/21 16:38	06/23/21 11:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW030S

Lab Sample ID: 500-201266-14

Date Collected: 06/22/21 13:38

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 87.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 05:19	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 05:19	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 05:19	20
PCB-1242	2.7		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 05:19	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 05:19	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 05:19	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/22/21 16:38	06/23/21 05:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		49 - 129	06/22/21 16:38	06/23/21 05:19	20
DCB Decachlorobiphenyl	68		37 - 121	06/22/21 16:38	06/23/21 05:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW031N

Lab Sample ID: 500-201266-15

Date Collected: 06/22/21 13:40

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 90.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.7		3.7		mg/Kg	☼	06/22/21 16:38	06/23/21 11:35	200
PCB-1221	<3.7		3.7		mg/Kg	☼	06/22/21 16:38	06/23/21 11:35	200
PCB-1232	<3.7		3.7		mg/Kg	☼	06/22/21 16:38	06/23/21 11:35	200
PCB-1242	<3.7		3.7		mg/Kg	☼	06/22/21 16:38	06/23/21 11:35	200
PCB-1248	7.6		3.7		mg/Kg	☼	06/22/21 16:38	06/23/21 11:35	200
PCB-1254	<3.7		3.7		mg/Kg	☼	06/22/21 16:38	06/23/21 11:35	200
PCB-1260	<3.7		3.7		mg/Kg	☼	06/22/21 16:38	06/23/21 11:35	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/22/21 16:38	06/23/21 11:35	200
DCB Decachlorobiphenyl	76		37 - 121	06/22/21 16:38	06/23/21 11:35	200

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SWDUP2

Lab Sample ID: 500-201266-17

Date Collected: 06/22/21 12:40

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 82.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/22/21 16:38	06/23/21 05:50	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/22/21 16:38	06/23/21 05:50	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/22/21 16:38	06/23/21 05:50	20
PCB-1242	1.8		0.40		mg/Kg	☼	06/22/21 16:38	06/23/21 05:50	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/22/21 16:38	06/23/21 05:50	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/22/21 16:38	06/23/21 05:50	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/22/21 16:38	06/23/21 05:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	06/22/21 16:38	06/23/21 05:50	20
DCB Decachlorobiphenyl	58		37 - 121	06/22/21 16:38	06/23/21 05:50	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

GC Semi VOA

Prep Batch: 605542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201266-1	ED-R1SD-SW020S	Total/NA	Solid	3541	
500-201266-2	ED-R1SD-SW021N	Total/NA	Solid	3541	
500-201266-3	ED-R1SD-033	Total/NA	Solid	3541	
500-201266-4	ED-R1SD-034	Total/NA	Solid	3541	
500-201266-5	ED-R1SD-035	Total/NA	Solid	3541	
500-201266-6	ED-R1SD-036	Total/NA	Solid	3541	
500-201266-7	ED-R1SD-037	Total/NA	Solid	3541	
500-201266-8	ED-R1SD-038	Total/NA	Solid	3541	
500-201266-9	ED-R1SD-039	Total/NA	Solid	3541	
500-201266-10	ED-R1SD-SW026S	Total/NA	Solid	3541	
500-201266-11	ED-R1SD-SW027N	Total/NA	Solid	3541	
500-201266-12	ED-R1SD-SW028S	Total/NA	Solid	3541	
500-201266-13	ED-R1SD-SW029N	Total/NA	Solid	3541	
500-201266-14	ED-R1SD-SW030S	Total/NA	Solid	3541	
500-201266-15	ED-R1SD-SW031N	Total/NA	Solid	3541	
500-201266-17	ED-R1SD-SWDUP2	Total/NA	Solid	3541	
MB 500-605542/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605542/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201266-4 MS	ED-R1SD-034	Total/NA	Solid	3541	
500-201266-4 MSD	ED-R1SD-034	Total/NA	Solid	3541	

Analysis Batch: 605551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201266-1	ED-R1SD-SW020S	Total/NA	Solid	8082A	605542
500-201266-3	ED-R1SD-033	Total/NA	Solid	8082A	605542
500-201266-4	ED-R1SD-034	Total/NA	Solid	8082A	605542
500-201266-5	ED-R1SD-035	Total/NA	Solid	8082A	605542
500-201266-6	ED-R1SD-036	Total/NA	Solid	8082A	605542
500-201266-7	ED-R1SD-037	Total/NA	Solid	8082A	605542
500-201266-9	ED-R1SD-039	Total/NA	Solid	8082A	605542
500-201266-10	ED-R1SD-SW026S	Total/NA	Solid	8082A	605542
500-201266-12	ED-R1SD-SW028S	Total/NA	Solid	8082A	605542
500-201266-14	ED-R1SD-SW030S	Total/NA	Solid	8082A	605542
500-201266-17	ED-R1SD-SWDUP2	Total/NA	Solid	8082A	605542
MB 500-605542/1-A	Method Blank	Total/NA	Solid	8082A	605542
LCS 500-605542/2-A	Lab Control Sample	Total/NA	Solid	8082A	605542
500-201266-4 MS	ED-R1SD-034	Total/NA	Solid	8082A	605542
500-201266-4 MSD	ED-R1SD-034	Total/NA	Solid	8082A	605542

Analysis Batch: 605641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201266-2	ED-R1SD-SW021N	Total/NA	Solid	8082A	605542
500-201266-8	ED-R1SD-038	Total/NA	Solid	8082A	605542
500-201266-11	ED-R1SD-SW027N	Total/NA	Solid	8082A	605542
500-201266-13	ED-R1SD-SW029N	Total/NA	Solid	8082A	605542
500-201266-15	ED-R1SD-SW031N	Total/NA	Solid	8082A	605542

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

General Chemistry

Analysis Batch: 605607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201266-1	ED-R1SD-SW020S	Total/NA	Solid	Moisture	
500-201266-2	ED-R1SD-SW021N	Total/NA	Solid	Moisture	
500-201266-3	ED-R1SD-033	Total/NA	Solid	Moisture	
500-201266-4	ED-R1SD-034	Total/NA	Solid	Moisture	
500-201266-5	ED-R1SD-035	Total/NA	Solid	Moisture	
500-201266-6	ED-R1SD-036	Total/NA	Solid	Moisture	
500-201266-7	ED-R1SD-037	Total/NA	Solid	Moisture	
500-201266-8	ED-R1SD-038	Total/NA	Solid	Moisture	
500-201266-9	ED-R1SD-039	Total/NA	Solid	Moisture	
500-201266-10	ED-R1SD-SW026S	Total/NA	Solid	Moisture	
500-201266-11	ED-R1SD-SW027N	Total/NA	Solid	Moisture	
500-201266-12	ED-R1SD-SW028S	Total/NA	Solid	Moisture	
500-201266-13	ED-R1SD-SW029N	Total/NA	Solid	Moisture	
500-201266-14	ED-R1SD-SW030S	Total/NA	Solid	Moisture	
500-201266-15	ED-R1SD-SW031N	Total/NA	Solid	Moisture	
500-201266-17	ED-R1SD-SWDUP2	Total/NA	Solid	Moisture	
500-201266-3 DU	ED-R1SD-033	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201266-1	ED-R1SD-SW020S	109	85
500-201266-2	ED-R1SD-SW021N	67	56
500-201266-3	ED-R1SD-033	84	68
500-201266-4	ED-R1SD-034	89	75
500-201266-4 MS	ED-R1SD-034	77	64
500-201266-4 MSD	ED-R1SD-034	83	68
500-201266-5	ED-R1SD-035	68	65
500-201266-6	ED-R1SD-036	66	64
500-201266-7	ED-R1SD-037	71	65
500-201266-8	ED-R1SD-038	61	62
500-201266-9	ED-R1SD-039	74	76
500-201266-10	ED-R1SD-SW026S	82	83
500-201266-11	ED-R1SD-SW027N	62	61
500-201266-12	ED-R1SD-SW028S	92	85
500-201266-13	ED-R1SD-SW029N	63	59
500-201266-14	ED-R1SD-SW030S	88	68
500-201266-15	ED-R1SD-SW031N	68	76
500-201266-17	ED-R1SD-SWDUP2	63	58
LCS 500-605542/2-A	Lab Control Sample	87	66
MB 500-605542/1-A	Method Blank	89	67

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-605542/1-A
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605542

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		06/22/21 16:38	06/23/21 00:57		20	
PCB-1221	<0.33		0.33		mg/Kg		06/22/21 16:38	06/23/21 00:57		20	
PCB-1232	<0.33		0.33		mg/Kg		06/22/21 16:38	06/23/21 00:57		20	
PCB-1242	<0.33		0.33		mg/Kg		06/22/21 16:38	06/23/21 00:57		20	
PCB-1248	<0.33		0.33		mg/Kg		06/22/21 16:38	06/23/21 00:57		20	
PCB-1254	<0.33		0.33		mg/Kg		06/22/21 16:38	06/23/21 00:57		20	
PCB-1260	<0.33		0.33		mg/Kg		06/22/21 16:38	06/23/21 00:57		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	89		49 - 129	06/22/21 16:38		06/23/21 00:57		20
DCB Decachlorobiphenyl	67		37 - 121	06/22/21 16:38		06/23/21 00:57		20

Lab Sample ID: LCS 500-605542/2-A
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605542

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.60		mg/Kg		96	57 - 120	
PCB-1260	1.67	1.30		mg/Kg		78	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	87		49 - 129
DCB Decachlorobiphenyl	66		37 - 121

Lab Sample ID: 500-201266-4 MS
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: ED-R1SD-034
Prep Type: Total/NA
Prep Batch: 605542

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<0.37	F1	1.87	2.58	F1	mg/Kg	☼	138	57 - 120	
PCB-1260	<0.37		1.87	1.61		mg/Kg	☼	86	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	77		49 - 129
DCB Decachlorobiphenyl	64		37 - 121

Lab Sample ID: 500-201266-4 MSD
Matrix: Solid
Analysis Batch: 605551

Client Sample ID: ED-R1SD-034
Prep Type: Total/NA
Prep Batch: 605542

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<0.37	F1	1.86	2.01		mg/Kg	☼	108	57 - 120	25	30	
PCB-1260	<0.37		1.86	1.49		mg/Kg	☼	80	61 - 125	8	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	83		49 - 129
DCB Decachlorobiphenyl	68		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW020S

Lab Sample ID: 500-201266-1

Date Collected: 06/22/21 12:40

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW020S

Lab Sample ID: 500-201266-1

Date Collected: 06/22/21 12:40

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 01:28	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW021N

Lab Sample ID: 500-201266-2

Date Collected: 06/22/21 12:42

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW021N

Lab Sample ID: 500-201266-2

Date Collected: 06/22/21 12:42

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 65.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605641	06/23/21 10:17	EF	TAL CHI

Client Sample ID: ED-R1SD-033

Lab Sample ID: 500-201266-3

Date Collected: 06/22/21 12:46

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-033

Lab Sample ID: 500-201266-3

Date Collected: 06/22/21 12:46

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 01:58	PJ1	TAL CHI

Client Sample ID: ED-R1SD-034

Lab Sample ID: 500-201266-4

Date Collected: 06/22/21 12:51

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-034

Lab Sample ID: 500-201266-4

Date Collected: 06/22/21 12:51

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 89.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 02:14	PJ1	TAL CHI

Client Sample ID: ED-R1SD-035

Lab Sample ID: 500-201266-5

Date Collected: 06/22/21 12:55

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-035

Lab Sample ID: 500-201266-5

Date Collected: 06/22/21 12:55

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 03:00	PJ1	TAL CHI

Client Sample ID: ED-R1SD-036

Lab Sample ID: 500-201266-6

Date Collected: 06/22/21 13:00

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-036

Lab Sample ID: 500-201266-6

Date Collected: 06/22/21 13:00

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 03:15	PJ1	TAL CHI

Client Sample ID: ED-R1SD-037

Lab Sample ID: 500-201266-7

Date Collected: 06/22/21 13:03

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-037

Lab Sample ID: 500-201266-7

Date Collected: 06/22/21 13:03

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 03:31	PJ1	TAL CHI

Client Sample ID: ED-R1SD-038

Lab Sample ID: 500-201266-8

Date Collected: 06/22/21 13:11

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-038

Lab Sample ID: 500-201266-8

Date Collected: 06/22/21 13:11

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		100	605641	06/23/21 10:33	EF	TAL CHI

Client Sample ID: ED-R1SD-039

Lab Sample ID: 500-201266-9

Date Collected: 06/22/21 13:15

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-039

Lab Sample ID: 500-201266-9

Date Collected: 06/22/21 13:15

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 04:02	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW026S

Lab Sample ID: 500-201266-10

Date Collected: 06/22/21 13:17

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW026S

Lab Sample ID: 500-201266-10

Date Collected: 06/22/21 13:17

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 04:17	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW027N

Lab Sample ID: 500-201266-11

Date Collected: 06/22/21 13:18

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW027N

Lab Sample ID: 500-201266-11

Date Collected: 06/22/21 13:18

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605641	06/23/21 11:04	EF	TAL CHI

Client Sample ID: ED-R1SD-SW028S

Lab Sample ID: 500-201266-12

Date Collected: 06/22/21 13:26

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW028S

Lab Sample ID: 500-201266-12

Date Collected: 06/22/21 13:26

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 04:48	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW029N

Lab Sample ID: 500-201266-13

Date Collected: 06/22/21 13:27

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SW029N

Lab Sample ID: 500-201266-13

Date Collected: 06/22/21 13:27

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605641	06/23/21 11:19	EF	TAL CHI

Client Sample ID: ED-R1SD-SW030S

Lab Sample ID: 500-201266-14

Date Collected: 06/22/21 13:38

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW030S

Lab Sample ID: 500-201266-14

Date Collected: 06/22/21 13:38

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 05:19	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW031N

Lab Sample ID: 500-201266-15

Date Collected: 06/22/21 13:40

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW031N

Lab Sample ID: 500-201266-15

Date Collected: 06/22/21 13:40

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		200	605641	06/23/21 11:35	EF	TAL CHI

Client Sample ID: ED-R1SD-SWDUP2

Lab Sample ID: 500-201266-17

Date Collected: 06/22/21 12:40

Matrix: Solid

Date Received: 06/22/21 16:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605607	06/23/21 06:45	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Client Sample ID: ED-R1SD-SWDUP2

Lab Sample ID: 500-201266-17

Date Collected: 06/22/21 12:40

Matrix: Solid

Date Received: 06/22/21 16:02

Percent Solids: 82.1

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			605542	06/22/21 16:38	ACK	TAL CHI
Total/NA	Analysis	8082A		20	605551	06/23/21 05:50	PJ1	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins E V C M E T B
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Client Information		Sampler Ian Jorgensen		Lab PM Kintz Robin M		Carrier Tracking No(s)		COC No 1 of 2 500-92691-41294 12	
Client Contact Jenny Rickford O'Brien		Phone 224-250-5434		E Mail Robin.Kintz@Eurofinset.com		State of Origin IN		Page Page 12 of 12	
Company Civil & Environmental Consultants Inc				PWSID		Analysis Requested			
Address 2704 Cherokee Farm Way Suite 101		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job # 500-201266	
City Knoxville		TAT Requested (days) Rush 24hr						Preservation Codes	
State Zip TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)	
Phone 865-340-4914(Tel)		PO # Purchase Order not required						Other	
Email jrckfordobrien@cecinc.com		WO #							
Project Name Arconic PCB Rush Project - Lafayette IN		Project # 50019033							
Site		SSOW#							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:			Special Instructions/Note
ED-R1SD-SW020S		6/22/21	1240	C	S	X			1
ED-R1SD-SW021N		6/22/21	1242	C	S	Y X			3
ED-R1SD-033		6/22/21	1246	C	S	X			1
ED-R1SD-034		6/22/21	1251	C	S	X			1
ED-R1SD-035		6/22/21	1255	C	S	X			1
ED-R1SD-036		6/22/21	1300	C	S	X			1
ED-R1SD-037		6/22/21	1303	C	S	X			1
ED-R1SD-038		6/22/21	1311	C	S	X			1
ED-R1SD-039		6/22/21	1315	C	S	X			1
ED-R1SD-SW026S		6/22/21	1317	C	S	X			1
ED-R1SD-SW027N		6/22/21	1318	C	S	X			1
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I II III IV Other (specify) II					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date		Time		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 6/22/21 1300		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 6/22/21 1300	
Relinquished by: <i>[Signature]</i>		Date/Time: 6/22/21 1602		Company: EA		Received by: <i>[Signature]</i>		Date/Time: 6/22/21 1602	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks. 5.4 → 5.1					

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Er or t t
 Are

Client Information				Sampler Ilan Jorgensen		Lab PM Kintz Robin M		Carrier Tracking No(s)		COC No 2 of 2 500-92691-41294 12					
Client Contact Jenny Rickford O'Brien				Phone 224-250-5434		E-Mail Robin Kintz@Eurofinset.com		State of Origin IN		Page Page 12 of 12					
Company Civil & Environmental Consultants Inc				PWSID		Analysis Requested						Job # 500-201266			
Address 2704 Cherokee Farm Way Suite 101				Due Date Requested								Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)			
City Knoxville				TAT Requested (days) Rush 24hr											
State Zip TN 37920				Compliance Project Δ Yes Δ No											
Phone 865-340-4914(Tel)				PO # Purchase Order not required											
Email jrckfordobrien@cecinc.com				WO #		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers		Special Instructions/Note			
Project Name Arconic PCB Rush Project - Lafayette IN				Project # 50019033		8082A PCBs									
Site				SSOW#											
Sample Identification				Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)					
								<input checked="" type="checkbox"/>							
ED-R1SD-SW028S				6/22/21		1326		C S		S		1			
ED-R1SD-SW029N				6/22/21		1327		C S		S		1			
ED-R1SD-SW030S				6/22/21		1338		C S		S		1			
ED R1SD-SW031N				6/22/21		1340		C S		S		1			
ED R1SD-EB5				6/22/21		1405		C W		S		2			
ED-R1SD-SWDUP2				6/22/21		1240		C S		S		1			
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify) II										Special Instructions/QC Requirements					
Empty Kit Relinquished by				Date		Time		Method of Shipment:							
Relinquished by [Signature]				6/22/21		CCL		Received by [Signature]		6/22/21 1500		EY			
Relinquished by [Signature]				6/22/21		EIA		Received by [Signature]		6/22/21 1600		ETA-CHI			
Relinquished by				Date/Time		Company		Received by		Date/Time		Company			
Custody Seals Intact: Δ Yes Δ No			Custody Seal No.			Cooler Temperature(s) °C and Other Remarks									

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201266-1

Login Number: 201266

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

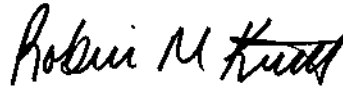
Laboratory Job ID: 500-201266-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/29/2021 11:38:55 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Job ID: 500-201266-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201266-2

Comments

No additional comments.

Receipt

The samples were received on 6/22/2021 4:02 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.1° C.

GC Semi VOA

Method 8082A: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-605633 and analytical batch 500-605842 recovered outside control limits for the following analytes: PCB-1260.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Client Sample ID: ED-R1SD-EB5

Lab Sample ID: 500-201266-16

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201266-16	ED-R1SD-EB5	Water	06/22/21 14:05	06/22/21 16:02	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Client Sample ID: ED-R1SD-EB5

Lab Sample ID: 500-201266-16

Date Collected: 06/22/21 14:05

Matrix: Water

Date Received: 06/22/21 16:02

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00038		0.00038		mg/L		06/23/21 07:16	06/24/21 03:25	1
PCB-1221	<0.00038		0.00038		mg/L		06/23/21 07:16	06/24/21 03:25	1
PCB-1232	<0.00038		0.00038		mg/L		06/23/21 07:16	06/24/21 03:25	1
PCB-1242	<0.00038		0.00038		mg/L		06/23/21 07:16	06/24/21 03:25	1
PCB-1248	<0.00038		0.00038		mg/L		06/23/21 07:16	06/24/21 03:25	1
PCB-1254	<0.00038		0.00038		mg/L		06/23/21 07:16	06/24/21 03:25	1
PCB-1260	<0.00038	*1	0.00038		mg/L		06/23/21 07:16	06/24/21 03:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	44		30 - 120	06/23/21 07:16	06/24/21 03:25	1
DCB Decachlorobiphenyl	78		30 - 140	06/23/21 07:16	06/24/21 03:25	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

GC Semi VOA

Prep Batch: 605633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201266-16	ED-R1SD-EB5	Total/NA	Water	3510C	
MB 500-605633/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-605633/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-605633/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 605842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201266-16	ED-R1SD-EB5	Total/NA	Water	8082A	605633
MB 500-605633/1-A	Method Blank	Total/NA	Water	8082A	605633
LCS 500-605633/4-A	Lab Control Sample	Total/NA	Water	8082A	605633
LCSD 500-605633/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	605633



Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201266-16	ED-R1SD-EB5	44	78
LCS 500-605633/4-A	Lab Control Sample	52	91
LCSD 500-605633/5-A	Lab Control Sample Dup	57	121
MB 500-605633/1-A	Method Blank	57	117

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-605633/1-A
Matrix: Water
Analysis Batch: 605842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605633

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1221	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1232	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1242	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1248	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1254	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1
PCB-1260	<0.00040		0.00040		mg/L		06/23/21 07:16	06/24/21 01:00	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	57		30 - 120	06/23/21 07:16	06/24/21 01:00	1
DCB Decachlorobiphenyl	117		30 - 140	06/23/21 07:16	06/24/21 01:00	1

Lab Sample ID: LCS 500-605633/4-A
Matrix: Water
Analysis Batch: 605842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605633

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00400	0.00345		mg/L		86	56 - 120
PCB-1260	0.00400	0.00398		mg/L		100	53 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	52		30 - 120
DCB Decachlorobiphenyl	91		30 - 140

Lab Sample ID: LCSD 500-605633/5-A
Matrix: Water
Analysis Batch: 605842

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 605633

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	
		Result	Qualifier					RPD	Limit
PCB-1016	0.00400	0.00417		mg/L		104	56 - 120	19	20
PCB-1260	0.00400	0.00500	*1	mg/L		125	53 - 137	23	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	57		30 - 120
DCB Decachlorobiphenyl	121		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Client Sample ID: ED-R1SD-EB5

Lab Sample ID: 500-201266-16

Date Collected: 06/22/21 14:05

Matrix: Water

Date Received: 06/22/21 16:02

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			605633	06/23/21 07:16	SB	TAL CHI
Total/NA	Analysis	8082A		1	605842	06/24/21 03:25	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201266-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Chain of Custody Record

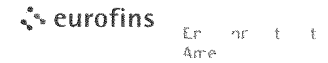
Client Information		Sampler Ian Jorgensen		Lab PM Kintz Robin M		Carrier Tracking No(s)		COC No 1 of 2 500-92691-41294 12		
Client Contact Jenny Rickford O'Brien		Phone 224-250-5434		E Mail Robin.Kintz@Eurofinset.com		State of Origin IN		Page Page 12 of 12		
Company Civil & Environmental Consultants Inc				PWSID		Analysis Requested				
Address 2704 Cherokee Farm Way Suite 101		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs				Job # 500-201266		
City Knoxville		TAT Requested (days) Rush 24hr						Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)		
State Zip TN 37920		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No								
Phone 865-340-4914(Tel)		PO # Purchase Order not required								
Email jrckfordobrien@cecinc.com		WO #								
Project Name Arconic PCB Rush Project - Lafayette IN		Project # 50019033		Total Number of containers				Other		
Site		SSOW#								
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note
				Preservation Code:		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
1	ED-R1SD-SW020S	6/22/21	1240	C	S				1	
2	ED-R1SD-SW021N	6/22/21	1242	C	S	Y	X		3	
3	ED-R1SD-033	6/22/21	1246	C	S		X		1	
4	ED-R1SD-034	6/22/21	1251	C	S		X		1	
5	ED-R1SD-035	6/22/21	1255	C	S		X		1	
6	ED-R1SD-036	6/22/21	1300	C	S		X		1	
7	ED-R1SD-037	6/22/21	1303	C	S		X		1	
8	ED-R1SD-038	6/22/21	1311	C	S		X		1	
9	ED-R1SD-039	6/22/21	1315	C	S		X		1	
10	ED-R1SD-SW026S	6/22/21	1317	C	S		X		1	
11	ED-R1SD-SW027N	6/22/21	1318	C	S		X		1	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify) II					Special Instructions/QC Requirements					
Empty Kit Relinquished by:		Date		Time		Method of Shipment:				
Relinquished by: <i>[Signature]</i>		Date/Time: 6/22/21 1300		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 6/22/21 1300		Company: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>		Date/Time: 6/22/21 1602		Company: EA		Received by: <i>[Signature]</i>		Date/Time: 6/22/21 1602		Company: <i>[Signature]</i>
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks.		5.4 → 5.1				6/29/2021



Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler Ian Jorgensen		Lab PM Kintz Robin M		Carrier Tracking No(s)		COC No 2 of 2 500-92691-41294 12		
Client Contact Jenny Rickford O'Brien		Phone 224-250-5434		E-Mail Robin.Kintz@Eurofinset.com		State of Origin IN		Page Page 12 of 12		
Company Civil & Environmental Consultants Inc				PWSID		Analysis Requested				
Address 2704 Cherokee Farm Way Suite 101		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A PCBs		Total Number of containers		Job # 500-201266		
City Knoxville		TAT Requested (days) Rush 24hr						Preservation Codes		
State Zip TN 37920		Compliance Project <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)		
Phone 865-340-4914(Tel)		PO # Purchase Order not required						Other		
Email jrckfordobrien@cecinc.com		WO #								
Project Name Arconic PCB Rush Project - Lafayette IN		Project # 50019033								
Site		SSOW#								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A PCBs	Total Number of containers	Special Instructions/Note
				Preservation Code.						
12 ED-R1SD-SW028S		6/22/21	1326	C	S		X		1	
13 ED-R1SD-SW029N		6/22/21	1327	C	S		X		1	
14 ED-R1SD-SW030S		6/22/21	1338	C	S		X		1	
15 ED R1SD-SW031N		6/22/21	1340	C	S		X		1	
16 ED R1SD-EB5		6/22/21	1405	C	W		X		2	
17 ED-R1SD-SWDUP2		6/22/21	1240	C	S		X		1	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I II III IV Other (specify) II						Special Instructions/QC Requirements				
Empty Kit Relinquished by		Date		Time		Method of Shipment:				
Relinquished by <i>[Signature]</i>		Date/Time 6/22/21		Company CEC		Received by <i>[Signature]</i>		Date/Time 6/22/21 1500		Company ETA
Relinquished by <i>P. Neal</i>		Date/Time 6/22/21 1600		Company ETA		Received by <i>[Signature]</i>		Date/Time 6/22/21 1600		Company ETA-CPL
Relinquished by		Date/Time		Company		Received by		Date/Time		Company
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.				Cooler Temperature(s) °C and Other Remarks				

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201266-2

Login Number: 201266

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201297-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/24/2021 2:21:17 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Job ID: 500-201297-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201297-1

Comments

No additional comments.

Receipt

The samples were received on 6/23/2021 12:22 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3° C.

Receipt Exceptions

Received bottle for sample 14 with time of 0813, logged per COC. Received bottle for sample 15 with time of 0818, logged per COC.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following samples was outside control limits: ED-R1SD-018-1 (500-201297-8). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following samples was outside control limits: ED-R1SD-017-1 (500-201297-7), ED-R1SD-019-1 (500-201297-9), ED-R1SD-043 (500-201297-14) and ED-R1SD-SW032S (500-201297-16). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-605845/2). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: ED-R1SD-011-1 (500-201297-3), ED-R1SD-012-1 (500-201297-4), ED-R1SD-015-1 (500-201297-5), ED-R1SD-016-1 (500-201297-6), ED-R1SD-017-1 (500-201297-7), ED-R1SD-018-1 (500-201297-8), ED-R1SD-019-1 (500-201297-9), ED-R1SD-020-1 (500-201297-10), ED-R1SD-040 (500-201297-11), ED-R1SD-042 (500-201297-13), ED-R1SD-SW032S (500-201297-16), ED-R1SD-SW033N (500-201297-17), ED-R1SD-SW034S (500-201297-18) and ED-R1SD-SW035N (500-201297-19).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-011-1 (500-201297-3), ED-R1SD-015-1 (500-201297-5), ED-R1SD-017-1 (500-201297-7), ED-R1SD-018-1 (500-201297-8), ED-R1SD-019-1 (500-201297-9), ED-R1SD-043 (500-201297-14), ED-R1SD-SW033N (500-201297-17), ED-R1SD-SW034S (500-201297-18) and ED-R1SD-SW035N (500-201297-19). The reagent lot number used was: Z07G073.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-007-1

Lab Sample ID: 500-201297-1

No Detections.

Client Sample ID: ED-R1SD-008-1

Lab Sample ID: 500-201297-2

No Detections.

Client Sample ID: ED-R1SD-011-1

Lab Sample ID: 500-201297-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.5		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-012-1

Lab Sample ID: 500-201297-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.3		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-015-1

Lab Sample ID: 500-201297-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.6		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-016-1

Lab Sample ID: 500-201297-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.66		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-017-1

Lab Sample ID: 500-201297-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	3.7		2.0		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-018-1

Lab Sample ID: 500-201297-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.3		1.9		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-019-1

Lab Sample ID: 500-201297-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.50		0.43		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-020-1

Lab Sample ID: 500-201297-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	3.4		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-040

Lab Sample ID: 500-201297-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.60		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-041

Lab Sample ID: 500-201297-12

No Detections.

Client Sample ID: ED-R1SD-042

Lab Sample ID: 500-201297-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.4		0.38		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-043

Lab Sample ID: 500-201297-14

No Detections.

Client Sample ID: ED-R1SD-044

Lab Sample ID: 500-201297-15

No Detections.

Client Sample ID: ED-R1SD-SW032S

Lab Sample ID: 500-201297-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	5.9		1.9		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW033N

Lab Sample ID: 500-201297-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.52		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW034S

Lab Sample ID: 500-201297-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.3		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW035N

Lab Sample ID: 500-201297-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.0		0.43		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-DUP3

Lab Sample ID: 500-201297-20

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201297-1	ED-R1SD-007-1	Solid	06/22/21 18:30	06/23/21 12:22	
500-201297-2	ED-R1SD-008-1	Solid	06/22/21 18:33	06/23/21 12:22	
500-201297-3	ED-R1SD-011-1	Solid	06/22/21 18:38	06/23/21 12:22	
500-201297-4	ED-R1SD-012-1	Solid	06/22/21 18:40	06/23/21 12:22	
500-201297-5	ED-R1SD-015-1	Solid	06/22/21 18:54	06/23/21 12:22	
500-201297-6	ED-R1SD-016-1	Solid	06/22/21 18:58	06/23/21 12:22	
500-201297-7	ED-R1SD-017-1	Solid	06/22/21 19:01	06/23/21 12:22	
500-201297-8	ED-R1SD-018-1	Solid	06/22/21 19:05	06/23/21 12:22	
500-201297-9	ED-R1SD-019-1	Solid	06/22/21 19:08	06/23/21 12:22	
500-201297-10	ED-R1SD-020-1	Solid	06/22/21 19:11	06/23/21 12:22	
500-201297-11	ED-R1SD-040	Solid	06/23/21 08:00	06/23/21 12:22	
500-201297-12	ED-R1SD-041	Solid	06/23/21 08:07	06/23/21 12:22	
500-201297-13	ED-R1SD-042	Solid	06/23/21 08:13	06/23/21 12:22	
500-201297-14	ED-R1SD-043	Solid	06/23/21 08:18	06/23/21 12:22	
500-201297-15	ED-R1SD-044	Solid	06/23/21 08:36	06/23/21 12:22	
500-201297-16	ED-R1SD-SW032S	Solid	06/23/21 08:20	06/23/21 12:22	
500-201297-17	ED-R1SD-SW033N	Solid	06/23/21 08:24	06/23/21 12:22	
500-201297-18	ED-R1SD-SW034S	Solid	06/23/21 08:38	06/23/21 12:22	
500-201297-19	ED-R1SD-SW035N	Solid	06/23/21 08:40	06/23/21 12:22	
500-201297-20	ED-R1SD-DUP3	Solid	06/23/21 08:00	06/23/21 12:22	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-007-1

Lab Sample ID: 500-201297-1

Date Collected: 06/22/21 18:30

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 80.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 02:24	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 02:24	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 02:24	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 02:24	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 02:24	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 02:24	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 02:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	06/23/21 17:15	06/24/21 02:24	20
DCB Decachlorobiphenyl	98		37 - 121	06/23/21 17:15	06/24/21 02:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-008-1

Lab Sample ID: 500-201297-2

Date Collected: 06/22/21 18:33

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 78.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 02:40	20
PCB-1221	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 02:40	20
PCB-1232	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 02:40	20
PCB-1242	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 02:40	20
PCB-1248	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 02:40	20
PCB-1254	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 02:40	20
PCB-1260	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 02:40	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		49 - 129	06/23/21 17:15	06/24/21 02:40	20
DCB Decachlorobiphenyl	97		37 - 121	06/23/21 17:15	06/24/21 02:40	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-011-1

Lab Sample ID: 500-201297-3

Date Collected: 06/22/21 18:38

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 81.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 11:25	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 11:25	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 11:25	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 11:25	20
PCB-1248	1.5		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 11:25	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 11:25	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 11:25	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	06/23/21 17:15	06/24/21 11:25	20
DCB Decachlorobiphenyl	76		37 - 121	06/23/21 17:15	06/24/21 11:25	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-012-1

Lab Sample ID: 500-201297-4

Date Collected: 06/22/21 18:40

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 79.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 03:11	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 03:11	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 03:11	20
PCB-1242	1.3		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 03:11	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 03:11	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 03:11	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/23/21 17:15	06/24/21 03:11	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	06/23/21 17:15	06/24/21 03:11	20
DCB Decachlorobiphenyl	80		37 - 121	06/23/21 17:15	06/24/21 03:11	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-015-1

Lab Sample ID: 500-201297-5

Date Collected: 06/22/21 18:54

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 09:07	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 09:07	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 09:07	20
PCB-1242	1.6		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 09:07	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 09:07	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 09:07	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 09:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/23/21 17:15	06/24/21 09:07	20
DCB Decachlorobiphenyl	46		37 - 121	06/23/21 17:15	06/24/21 09:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-016-1

Lab Sample ID: 500-201297-6

Date Collected: 06/22/21 18:58

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 03:41	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 03:41	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 03:41	20
PCB-1242	0.66		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 03:41	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 03:41	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 03:41	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 03:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	06/23/21 17:15	06/24/21 03:41	20
DCB Decachlorobiphenyl	73		37 - 121	06/23/21 17:15	06/24/21 03:41	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-017-1

Lab Sample ID: 500-201297-7

Date Collected: 06/22/21 19:01

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 83.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.0		2.0		mg/Kg	☼	06/23/21 17:15	06/24/21 09:22	100
PCB-1221	<2.0		2.0		mg/Kg	☼	06/23/21 17:15	06/24/21 09:22	100
PCB-1232	<2.0		2.0		mg/Kg	☼	06/23/21 17:15	06/24/21 09:22	100
PCB-1242	3.7		2.0		mg/Kg	☼	06/23/21 17:15	06/24/21 09:22	100
PCB-1248	<2.0		2.0		mg/Kg	☼	06/23/21 17:15	06/24/21 09:22	100
PCB-1254	<2.0		2.0		mg/Kg	☼	06/23/21 17:15	06/24/21 09:22	100
PCB-1260	<2.0		2.0		mg/Kg	☼	06/23/21 17:15	06/24/21 09:22	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	46	S1-	49 - 129	06/23/21 17:15	06/24/21 09:22	100
DCB Decachlorobiphenyl	61		37 - 121	06/23/21 17:15	06/24/21 09:22	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-018-1

Lab Sample ID: 500-201297-8

Date Collected: 06/22/21 19:05

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 09:37	100
PCB-1221	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 09:37	100
PCB-1232	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 09:37	100
PCB-1242	2.3		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 09:37	100
PCB-1248	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 09:37	100
PCB-1254	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 09:37	100
PCB-1260	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 09:37	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	52		49 - 129	06/23/21 17:15	06/24/21 09:37	100
DCB Decachlorobiphenyl	34	S1-	37 - 121	06/23/21 17:15	06/24/21 09:37	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-019-1

Lab Sample ID: 500-201297-9

Date Collected: 06/22/21 19:08

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 76.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 09:53	20
PCB-1221	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 09:53	20
PCB-1232	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 09:53	20
PCB-1242	0.50		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 09:53	20
PCB-1248	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 09:53	20
PCB-1254	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 09:53	20
PCB-1260	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 09:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	32	S1-	49 - 129	06/23/21 17:15	06/24/21 09:53	20
DCB Decachlorobiphenyl	38		37 - 121	06/23/21 17:15	06/24/21 09:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-020-1

Lab Sample ID: 500-201297-10

Date Collected: 06/22/21 19:11

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 83.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 04:43	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 04:43	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 04:43	20
PCB-1242	3.4		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 04:43	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 04:43	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 04:43	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 04:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	06/23/21 17:15	06/24/21 04:43	20
DCB Decachlorobiphenyl	95		37 - 121	06/23/21 17:15	06/24/21 04:43	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-040

Lab Sample ID: 500-201297-11

Date Collected: 06/23/21 08:00

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 87.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/23/21 17:15	06/24/21 04:58	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/23/21 17:15	06/24/21 04:58	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/23/21 17:15	06/24/21 04:58	20
PCB-1242	0.60		0.37		mg/Kg	☼	06/23/21 17:15	06/24/21 04:58	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/23/21 17:15	06/24/21 04:58	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/23/21 17:15	06/24/21 04:58	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/23/21 17:15	06/24/21 04:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/23/21 17:15	06/24/21 04:58	20
DCB Decachlorobiphenyl	91		37 - 121	06/23/21 17:15	06/24/21 04:58	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-041

Lab Sample ID: 500-201297-12

Date Collected: 06/23/21 08:07

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 84.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 05:14	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 05:14	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 05:14	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 05:14	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 05:14	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 05:14	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 05:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	06/23/21 17:15	06/24/21 05:14	20
DCB Decachlorobiphenyl	96		37 - 121	06/23/21 17:15	06/24/21 05:14	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-042

Lab Sample ID: 500-201297-13

Date Collected: 06/23/21 08:13

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 06:00	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 06:00	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 06:00	20
PCB-1242	2.4		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 06:00	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 06:00	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 06:00	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 06:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	06/23/21 17:15	06/24/21 06:00	20
DCB Decachlorobiphenyl	107		37 - 121	06/23/21 17:15	06/24/21 06:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-043

Lab Sample ID: 500-201297-14

Date Collected: 06/23/21 08:18

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 83.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:08	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:08	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:08	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:08	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:08	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:08	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	39	S1-	49 - 129	06/23/21 17:15	06/24/21 10:08	20
DCB Decachlorobiphenyl	56		37 - 121	06/23/21 17:15	06/24/21 10:08	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-044

Lab Sample ID: 500-201297-15

Date Collected: 06/23/21 08:36

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 89.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	06/23/21 17:15	06/24/21 06:31	20
PCB-1221	<0.36		0.36		mg/Kg	☼	06/23/21 17:15	06/24/21 06:31	20
PCB-1232	<0.36		0.36		mg/Kg	☼	06/23/21 17:15	06/24/21 06:31	20
PCB-1242	<0.36		0.36		mg/Kg	☼	06/23/21 17:15	06/24/21 06:31	20
PCB-1248	<0.36		0.36		mg/Kg	☼	06/23/21 17:15	06/24/21 06:31	20
PCB-1254	<0.36		0.36		mg/Kg	☼	06/23/21 17:15	06/24/21 06:31	20
PCB-1260	<0.36		0.36		mg/Kg	☼	06/23/21 17:15	06/24/21 06:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/23/21 17:15	06/24/21 06:31	20
DCB Decachlorobiphenyl	102		37 - 121	06/23/21 17:15	06/24/21 06:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-SW032S

Lab Sample ID: 500-201297-16

Date Collected: 06/23/21 08:20

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 85.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 10:24	100
PCB-1221	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 10:24	100
PCB-1232	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 10:24	100
PCB-1242	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 10:24	100
PCB-1248	5.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 10:24	100
PCB-1254	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 10:24	100
PCB-1260	<1.9		1.9		mg/Kg	☼	06/23/21 17:15	06/24/21 10:24	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	39	S1-	49 - 129	06/23/21 17:15	06/24/21 10:24	100
DCB Decachlorobiphenyl	50		37 - 121	06/23/21 17:15	06/24/21 10:24	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-SW033N

Lab Sample ID: 500-201297-17

Date Collected: 06/23/21 08:24

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 78.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 10:39	20
PCB-1221	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 10:39	20
PCB-1232	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 10:39	20
PCB-1242	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 10:39	20
PCB-1248	0.52		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 10:39	20
PCB-1254	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 10:39	20
PCB-1260	<0.42		0.42		mg/Kg	☼	06/23/21 17:15	06/24/21 10:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		49 - 129	06/23/21 17:15	06/24/21 10:39	20
DCB Decachlorobiphenyl	94		37 - 121	06/23/21 17:15	06/24/21 10:39	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-SW034S

Lab Sample ID: 500-201297-18

Date Collected: 06/23/21 08:38

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 83.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:55	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:55	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:55	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:55	20
PCB-1248	2.3		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:55	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:55	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/23/21 17:15	06/24/21 10:55	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		49 - 129	06/23/21 17:15	06/24/21 10:55	20
DCB Decachlorobiphenyl	90		37 - 121	06/23/21 17:15	06/24/21 10:55	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-SW035N

Lab Sample ID: 500-201297-19

Date Collected: 06/23/21 08:40

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 76.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 11:10	20
PCB-1221	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 11:10	20
PCB-1232	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 11:10	20
PCB-1242	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 11:10	20
PCB-1248	1.0		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 11:10	20
PCB-1254	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 11:10	20
PCB-1260	<0.43		0.43		mg/Kg	☼	06/23/21 17:15	06/24/21 11:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	06/23/21 17:15	06/24/21 11:10	20
DCB Decachlorobiphenyl	86		37 - 121	06/23/21 17:15	06/24/21 11:10	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-DUP3

Lab Sample ID: 500-201297-20

Date Collected: 06/23/21 08:00

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 87.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 07:48	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 07:48	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 07:48	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 07:48	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 07:48	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 07:48	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/23/21 17:15	06/24/21 07:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	06/23/21 17:15	06/24/21 07:48	20
DCB Decachlorobiphenyl	89		37 - 121	06/23/21 17:15	06/24/21 07:48	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

GC Semi VOA

Prep Batch: 605796

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201297-1	ED-R1SD-007-1	Total/NA	Solid	3541	
500-201297-2	ED-R1SD-008-1	Total/NA	Solid	3541	
500-201297-3	ED-R1SD-011-1	Total/NA	Solid	3541	
500-201297-4	ED-R1SD-012-1	Total/NA	Solid	3541	
500-201297-5	ED-R1SD-015-1	Total/NA	Solid	3541	
500-201297-6	ED-R1SD-016-1	Total/NA	Solid	3541	
500-201297-7	ED-R1SD-017-1	Total/NA	Solid	3541	
500-201297-8	ED-R1SD-018-1	Total/NA	Solid	3541	
500-201297-9	ED-R1SD-019-1	Total/NA	Solid	3541	
500-201297-10	ED-R1SD-020-1	Total/NA	Solid	3541	
500-201297-11	ED-R1SD-040	Total/NA	Solid	3541	
500-201297-12	ED-R1SD-041	Total/NA	Solid	3541	
500-201297-13	ED-R1SD-042	Total/NA	Solid	3541	
500-201297-14	ED-R1SD-043	Total/NA	Solid	3541	
500-201297-15	ED-R1SD-044	Total/NA	Solid	3541	
500-201297-16	ED-R1SD-SW032S	Total/NA	Solid	3541	
500-201297-17	ED-R1SD-SW033N	Total/NA	Solid	3541	
500-201297-18	ED-R1SD-SW034S	Total/NA	Solid	3541	
500-201297-19	ED-R1SD-SW035N	Total/NA	Solid	3541	
500-201297-20	ED-R1SD-DUP3	Total/NA	Solid	3541	
MB 500-605796/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-605796/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201297-12 MS	ED-R1SD-041	Total/NA	Solid	3541	
500-201297-12 MSD	ED-R1SD-041	Total/NA	Solid	3541	

Analysis Batch: 605845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201297-1	ED-R1SD-007-1	Total/NA	Solid	8082A	605796
500-201297-2	ED-R1SD-008-1	Total/NA	Solid	8082A	605796
500-201297-3	ED-R1SD-011-1	Total/NA	Solid	8082A	605796
500-201297-4	ED-R1SD-012-1	Total/NA	Solid	8082A	605796
500-201297-5	ED-R1SD-015-1	Total/NA	Solid	8082A	605796
500-201297-6	ED-R1SD-016-1	Total/NA	Solid	8082A	605796
500-201297-7	ED-R1SD-017-1	Total/NA	Solid	8082A	605796
500-201297-8	ED-R1SD-018-1	Total/NA	Solid	8082A	605796
500-201297-9	ED-R1SD-019-1	Total/NA	Solid	8082A	605796
500-201297-10	ED-R1SD-020-1	Total/NA	Solid	8082A	605796
500-201297-11	ED-R1SD-040	Total/NA	Solid	8082A	605796
500-201297-12	ED-R1SD-041	Total/NA	Solid	8082A	605796
500-201297-13	ED-R1SD-042	Total/NA	Solid	8082A	605796
500-201297-14	ED-R1SD-043	Total/NA	Solid	8082A	605796
500-201297-15	ED-R1SD-044	Total/NA	Solid	8082A	605796
500-201297-16	ED-R1SD-SW032S	Total/NA	Solid	8082A	605796
500-201297-17	ED-R1SD-SW033N	Total/NA	Solid	8082A	605796
500-201297-18	ED-R1SD-SW034S	Total/NA	Solid	8082A	605796
500-201297-19	ED-R1SD-SW035N	Total/NA	Solid	8082A	605796
500-201297-20	ED-R1SD-DUP3	Total/NA	Solid	8082A	605796
MB 500-605796/1-A	Method Blank	Total/NA	Solid	8082A	605796
LCS 500-605796/2-A	Lab Control Sample	Total/NA	Solid	8082A	605796
500-201297-12 MS	ED-R1SD-041	Total/NA	Solid	8082A	605796
500-201297-12 MSD	ED-R1SD-041	Total/NA	Solid	8082A	605796

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

General Chemistry

Analysis Batch: 605765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201297-1	ED-R1SD-007-1	Total/NA	Solid	Moisture	
500-201297-2	ED-R1SD-008-1	Total/NA	Solid	Moisture	
500-201297-3	ED-R1SD-011-1	Total/NA	Solid	Moisture	
500-201297-4	ED-R1SD-012-1	Total/NA	Solid	Moisture	
500-201297-5	ED-R1SD-015-1	Total/NA	Solid	Moisture	
500-201297-6	ED-R1SD-016-1	Total/NA	Solid	Moisture	
500-201297-7	ED-R1SD-017-1	Total/NA	Solid	Moisture	
500-201297-8	ED-R1SD-018-1	Total/NA	Solid	Moisture	
500-201297-9	ED-R1SD-019-1	Total/NA	Solid	Moisture	
500-201297-10	ED-R1SD-020-1	Total/NA	Solid	Moisture	
500-201297-11	ED-R1SD-040	Total/NA	Solid	Moisture	
500-201297-12	ED-R1SD-041	Total/NA	Solid	Moisture	
500-201297-13	ED-R1SD-042	Total/NA	Solid	Moisture	
500-201297-14	ED-R1SD-043	Total/NA	Solid	Moisture	
500-201297-15	ED-R1SD-044	Total/NA	Solid	Moisture	
500-201297-16	ED-R1SD-SW032S	Total/NA	Solid	Moisture	
500-201297-17	ED-R1SD-SW033N	Total/NA	Solid	Moisture	
500-201297-18	ED-R1SD-SW034S	Total/NA	Solid	Moisture	
500-201297-19	ED-R1SD-SW035N	Total/NA	Solid	Moisture	
500-201297-20	ED-R1SD-DUP3	Total/NA	Solid	Moisture	
500-201297-20 DU	ED-R1SD-DUP3	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (49-129)	DCBP1 (37-121)
500-201297-1	ED-R1SD-007-1	80	98
500-201297-2	ED-R1SD-008-1	86	97
500-201297-3	ED-R1SD-011-1	63	76
500-201297-4	ED-R1SD-012-1	81	80
500-201297-5	ED-R1SD-015-1	76	46
500-201297-6	ED-R1SD-016-1	84	73
500-201297-7	ED-R1SD-017-1	46 S1-	61
500-201297-8	ED-R1SD-018-1	52	34 S1-
500-201297-9	ED-R1SD-019-1	32 S1-	38
500-201297-10	ED-R1SD-020-1	84	95
500-201297-11	ED-R1SD-040	68	91
500-201297-12	ED-R1SD-041	66	96
500-201297-12 MS	ED-R1SD-041	78	102
500-201297-12 MSD	ED-R1SD-041	80	99
500-201297-13	ED-R1SD-042	70	107
500-201297-14	ED-R1SD-043	39 S1-	56
500-201297-15	ED-R1SD-044	76	102
500-201297-16	ED-R1SD-SW032S	39 S1-	50
500-201297-17	ED-R1SD-SW033N	85	94
500-201297-18	ED-R1SD-SW034S	91	90
500-201297-19	ED-R1SD-SW035N	83	86
500-201297-20	ED-R1SD-DUP3	81	89
LCS 500-605796/2-A	Lab Control Sample	90	101
MB 500-605796/1-A	Method Blank	93	98

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-605796/1-A
Matrix: Solid
Analysis Batch: 605845

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 605796

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/23/21 17:15	06/24/21 01:53	20
PCB-1221	<0.33		0.33		mg/Kg		06/23/21 17:15	06/24/21 01:53	20
PCB-1232	<0.33		0.33		mg/Kg		06/23/21 17:15	06/24/21 01:53	20
PCB-1242	<0.33		0.33		mg/Kg		06/23/21 17:15	06/24/21 01:53	20
PCB-1248	<0.33		0.33		mg/Kg		06/23/21 17:15	06/24/21 01:53	20
PCB-1254	<0.33		0.33		mg/Kg		06/23/21 17:15	06/24/21 01:53	20
PCB-1260	<0.33		0.33		mg/Kg		06/23/21 17:15	06/24/21 01:53	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	93		49 - 129	06/23/21 17:15	06/24/21 01:53	20
DCB Decachlorobiphenyl	98		37 - 121	06/23/21 17:15	06/24/21 01:53	20

Lab Sample ID: LCS 500-605796/2-A
Matrix: Solid
Analysis Batch: 605845

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 605796

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.30		mg/Kg		78	57 - 120
PCB-1260	1.67	1.50		mg/Kg		90	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	90		49 - 129
DCB Decachlorobiphenyl	101		37 - 121

Lab Sample ID: 500-201297-12 MS
Matrix: Solid
Analysis Batch: 605845

Client Sample ID: ED-R1SD-041
Prep Type: Total/NA
Prep Batch: 605796

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.39		1.95	1.54		mg/Kg	☼	79	57 - 120
PCB-1260	<0.39		1.95	1.78		mg/Kg	☼	91	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	78		49 - 129
DCB Decachlorobiphenyl	102		37 - 121

Lab Sample ID: 500-201297-12 MSD
Matrix: Solid
Analysis Batch: 605845

Client Sample ID: ED-R1SD-041
Prep Type: Total/NA
Prep Batch: 605796

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.39		1.96	1.57		mg/Kg	☼	80	57 - 120	2	30
PCB-1260	<0.39		1.96	1.76		mg/Kg	☼	90	61 - 125	1	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	80		49 - 129
DCB Decachlorobiphenyl	99		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-007-1

Date Collected: 06/22/21 18:30

Date Received: 06/23/21 12:22

Lab Sample ID: 500-201297-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-007-1

Date Collected: 06/22/21 18:30

Date Received: 06/23/21 12:22

Lab Sample ID: 500-201297-1

Matrix: Solid

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 02:24	SS	TAL CHI

Client Sample ID: ED-R1SD-008-1

Date Collected: 06/22/21 18:33

Date Received: 06/23/21 12:22

Lab Sample ID: 500-201297-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-008-1

Date Collected: 06/22/21 18:33

Date Received: 06/23/21 12:22

Lab Sample ID: 500-201297-2

Matrix: Solid

Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 02:40	SS	TAL CHI

Client Sample ID: ED-R1SD-011-1

Date Collected: 06/22/21 18:38

Date Received: 06/23/21 12:22

Lab Sample ID: 500-201297-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-011-1

Date Collected: 06/22/21 18:38

Date Received: 06/23/21 12:22

Lab Sample ID: 500-201297-3

Matrix: Solid

Percent Solids: 81.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 11:25	SS	TAL CHI

Client Sample ID: ED-R1SD-012-1

Date Collected: 06/22/21 18:40

Date Received: 06/23/21 12:22

Lab Sample ID: 500-201297-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-012-1

Lab Sample ID: 500-201297-4

Date Collected: 06/22/21 18:40

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 03:11	SS	TAL CHI

Client Sample ID: ED-R1SD-015-1

Lab Sample ID: 500-201297-5

Date Collected: 06/22/21 18:54

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-015-1

Lab Sample ID: 500-201297-5

Date Collected: 06/22/21 18:54

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 09:07	SS	TAL CHI

Client Sample ID: ED-R1SD-016-1

Lab Sample ID: 500-201297-6

Date Collected: 06/22/21 18:58

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-016-1

Lab Sample ID: 500-201297-6

Date Collected: 06/22/21 18:58

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 03:41	SS	TAL CHI

Client Sample ID: ED-R1SD-017-1

Lab Sample ID: 500-201297-7

Date Collected: 06/22/21 19:01

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-017-1

Lab Sample ID: 500-201297-7

Date Collected: 06/22/21 19:01

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		100	605845	06/24/21 09:22	SS	TAL CHI

Client Sample ID: ED-R1SD-018-1

Lab Sample ID: 500-201297-8

Date Collected: 06/22/21 19:05

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-018-1

Lab Sample ID: 500-201297-8

Date Collected: 06/22/21 19:05

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		100	605845	06/24/21 09:37	SS	TAL CHI

Client Sample ID: ED-R1SD-019-1

Lab Sample ID: 500-201297-9

Date Collected: 06/22/21 19:08

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-019-1

Lab Sample ID: 500-201297-9

Date Collected: 06/22/21 19:08

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 76.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 09:53	SS	TAL CHI

Client Sample ID: ED-R1SD-020-1

Lab Sample ID: 500-201297-10

Date Collected: 06/22/21 19:11

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-020-1

Lab Sample ID: 500-201297-10

Date Collected: 06/22/21 19:11

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 04:43	SS	TAL CHI

Client Sample ID: ED-R1SD-040

Lab Sample ID: 500-201297-11

Date Collected: 06/23/21 08:00

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-040

Lab Sample ID: 500-201297-11

Date Collected: 06/23/21 08:00

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 04:58	SS	TAL CHI

Client Sample ID: ED-R1SD-041

Lab Sample ID: 500-201297-12

Date Collected: 06/23/21 08:07

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-041

Lab Sample ID: 500-201297-12

Date Collected: 06/23/21 08:07

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 05:14	SS	TAL CHI

Client Sample ID: ED-R1SD-042

Lab Sample ID: 500-201297-13

Date Collected: 06/23/21 08:13

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-042

Lab Sample ID: 500-201297-13

Date Collected: 06/23/21 08:13

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 06:00	SS	TAL CHI

Client Sample ID: ED-R1SD-043

Lab Sample ID: 500-201297-14

Date Collected: 06/23/21 08:18

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-043

Lab Sample ID: 500-201297-14

Date Collected: 06/23/21 08:18

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 10:08	SS	TAL CHI

Client Sample ID: ED-R1SD-044

Lab Sample ID: 500-201297-15

Date Collected: 06/23/21 08:36

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-044

Lab Sample ID: 500-201297-15

Date Collected: 06/23/21 08:36

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 06:31	SS	TAL CHI

Client Sample ID: ED-R1SD-SW032S

Lab Sample ID: 500-201297-16

Date Collected: 06/23/21 08:20

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-SW032S

Lab Sample ID: 500-201297-16

Date Collected: 06/23/21 08:20

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		100	605845	06/24/21 10:24	SS	TAL CHI

Client Sample ID: ED-R1SD-SW033N

Lab Sample ID: 500-201297-17

Date Collected: 06/23/21 08:24

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW033N

Lab Sample ID: 500-201297-17

Date Collected: 06/23/21 08:24

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 10:39	SS	TAL CHI

Client Sample ID: ED-R1SD-SW034S

Lab Sample ID: 500-201297-18

Date Collected: 06/23/21 08:38

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW034S

Lab Sample ID: 500-201297-18

Date Collected: 06/23/21 08:38

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 10:55	SS	TAL CHI

Client Sample ID: ED-R1SD-SW035N

Lab Sample ID: 500-201297-19

Date Collected: 06/23/21 08:40

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Client Sample ID: ED-R1SD-SW035N

Lab Sample ID: 500-201297-19

Date Collected: 06/23/21 08:40

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 11:10	SS	TAL CHI

Client Sample ID: ED-R1SD-DUP3

Lab Sample ID: 500-201297-20

Date Collected: 06/23/21 08:00

Matrix: Solid

Date Received: 06/23/21 12:22

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	605765	06/23/21 16:29	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP3

Lab Sample ID: 500-201297-20

Date Collected: 06/23/21 08:00

Matrix: Solid

Date Received: 06/23/21 12:22

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			605796	06/23/21 17:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	605845	06/24/21 07:48	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201297-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler F. JORGENSEN		Lab PM Kintz Robin M		Carrier Tracking No(s)		COC No: 500-92691-41294 11	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin		Page Page 11 of 12 102.1062	
Company: Civil & Environmental Consultants Inc		PWSID		Analysis Requested		Job #: 500-201297		Preservation Codes	
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8002A - PCBs		Total Number of containers		A HCL M Hexane	
City: Knoxville		TAT Requested (days): RUSH 24hr						B NaOH N None	
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						C Zn Acetate O AsNaO2	
Phone: 865-340-4914(Tel)		PO # Purchase Order not required						D Nitric Acid P Na2O4S	
Email: jrnickfordobrien@cecinc.com		WO #:		E NaHSO4 Q Na2SO3		F MeOH R Na2S2O3		G Amchlor S H2SO4	
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		H Ascorbic Acid T TSP Dodecahydrate		I Ice U Acetone		J DI Water V MCAA	
Site		SSOW#:		L EDTA W pH 4-5		Other:		Z other (specify)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, O=waste/oil, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code:	
ED-RISD-007-1		6/22/21		1830		C		S	
ED-RISD-008-1				1833		C		S	
ED-RISD-011-1				1838		C		S	
ED-RISD-012-1				1840		C		S	
ED-RISD-015-1				1854		C		S	
ED-RISD-016-1				1858		C		S	
ED-RISD-017-1				1901		C		S	
ED-RISD-018-1				1905		C		S	
ED-RISD-019-1				1908		C		S	
ED-RISD-020-1				1911		C		S	
ED-RISD-040		6/23/21		0800		C		S	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I II III IV Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by		Date		Time		Method of Shipment:			
Relinquished by: [Signature]		Date/Time: 6/23/21 1116		Company: CEC		Received by: [Signature]		Date/Time: 6/23/21 1116	
Relinquished by: R. New		Date/Time: 6/23/21 1222		Company: EPA		Received by: [Signature]		Date/Time: 6/23/21 1222	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 3.6 → 3.3					

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: <i>I. JOAGROUSEN</i>		Lab PM: Kintz Robin M		Carrier Tracking No(s)		COC No: 500-92691-41294 12											
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin		Page: Page 12 of 12 <i>2 of 2</i>											
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested				Job # <i>500-201297</i>											
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> </table>				Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Preservation Codes		A HCL M Hexane B - NaOH N None C - Zn Acetate O AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I - Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify)			
Field Filtered Sample (Yes or No)																			
Perform MS/MSD (Yes or No)																			
8082A - PCBs																			
City: Knoxville		TAT Requested (days)																	
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																	
Email: jrnickfordobrien@cecinc.com		WO #:																	
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033						Other:											
Site:		SSOW#:																	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of containers		Special Instructions/Note	
								Preservation Code:		X		X				3			
<i>12 ED-RISD-041 (MS/MSD)</i>		<i>6/23/21</i>		<i>0807</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>3</i>			
<i>13 ED-RISD-042</i>		<i> </i>		<i>0813</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>1</i>			
<i>14 ED-RISD-043</i>		<i> </i>		<i>0818</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>1</i>		<i>0813</i>	
<i>15 ED-RISD-044</i>		<i> </i>		<i>0836</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>1</i>		<i>0818</i>	
<i>16 ED-RISD-SW 032 S</i>		<i> </i>		<i>0822</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>1</i>			
<i>17 ED-RISD-SW 033 N</i>		<i> </i>		<i>0824</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>1</i>			
<i>18 ED-RISD-SW 034 S</i>		<i> </i>		<i>0838</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>1</i>			
<i>19 ED-RISD-SW 035 N</i>		<i> </i>		<i>0840</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>1</i>			
<i>20 ED-RISD-DUP3</i>		<i>↓</i>		<i>0800</i>		<i>C S</i>				<i>X</i>		<i>X</i>				<i>1</i>			
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Deliverable Requested <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Other (specify)										Special Instructions/QC Requirements									
Empty Kit Relinquished by				Date		Time		Method of Shipment:											
Relinquished by <i>[Signature]</i>				Date/Time: <i>6/23/21 1116</i>		Company: <i>CEC</i>		Received by <i>[Signature]</i>				Date/Time: <i>6/23/21 1116</i>		Company: <i>EPA</i>					
Relinquished by <i>P. New</i>				Date/Time: <i>6/23/21 1222</i>		Company: <i>EPA</i>		Received by <i>[Signature]</i>				Date/Time: <i>6/23/21 1222</i>		Company: <i>EPA/CHT</i>					
Relinquished by				Date/Time:		Company:		Received by				Date/Time:		Company:					
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>3-6 → 3.3</i>															

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201297-1

Login Number: 201297

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201392-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/25/2021 5:50:38 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Job ID: 500-201392-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201392-1

Comments

No additional comments.

Receipt

The samples were received on 6/24/2021 12:18 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

Receipt Exceptions

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): Sample #28 "ED-R1SD-SW0E(9-10)" Container label list "ED-R1SD-SW0E(9-10)N". Logged per COC.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following samples was outside control limits: ED-R1SD-026-1 (500-201392-6) and ED-R1SD-030-1 (500-201392-9). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: ED-R1SD-021-1 (500-201392-1), ED-R1SD-022-1 (500-201392-2), ED-R1SD-025-1 (500-201392-5), ED-R1SD-029-1 (500-201392-8), ED-R1SD-009-1 (500-201392-10) and ED-R1SD-010-1 (500-201392-11).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-024-1 (500-201392-4), ED-R1SD-045 (500-201392-14), ED-R1SD-046 (500-201392-15), ED-R1SD-049 (500-201392-18), ED-R1SD-SW038S (500-201392-19) and ED-R1SD-SW039N (500-201392-20). The reagent lot number used was: Z079073.

Method 8082A: DCB Decachlorobiphenyl Surrogate recovery for the following sample was outside control limits: ED-R1SD-045 (500-201392-14). Tetrachloro-m-xylene Surrogate was within the control limits; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1232: ED-R1SD-024-1 (500-201392-4), ED-R1SD-014-1 (500-201392-13), ED-R1SD-045 (500-201392-14), ED-R1SD-049 (500-201392-18) and ED-R1SD-SW039N (500-201392-20).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1016: ED-R1SD-024-1 (500-201392-4).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW038S (500-201392-19).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-021-1

Lab Sample ID: 500-201392-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	1.5		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-022-1

Lab Sample ID: 500-201392-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	4.9		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-023-1

Lab Sample ID: 500-201392-3

No Detections.

Client Sample ID: ED-R1SD-024-1

Lab Sample ID: 500-201392-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	1.2		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-025-1

Lab Sample ID: 500-201392-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	0.98		0.44		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-026-1

Lab Sample ID: 500-201392-6

No Detections.

Client Sample ID: ED-R1SD-027-1

Lab Sample ID: 500-201392-7

No Detections.

Client Sample ID: ED-R1SD-029-1

Lab Sample ID: 500-201392-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	2.0		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-030-1

Lab Sample ID: 500-201392-9

No Detections.

Client Sample ID: ED-R1SD-009-1

Lab Sample ID: 500-201392-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.6		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-010-1

Lab Sample ID: 500-201392-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	2.2		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-013-1

Lab Sample ID: 500-201392-12

No Detections.

Client Sample ID: ED-R1SD-014-1

Lab Sample ID: 500-201392-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	2.9		0.36		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-045

Lab Sample ID: 500-201392-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	1.0		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-046

Lab Sample ID: 500-201392-15

No Detections.

Client Sample ID: ED-R1SD-047

Lab Sample ID: 500-201392-16

No Detections.

Client Sample ID: ED-R1SD-048

Lab Sample ID: 500-201392-17

No Detections.

Client Sample ID: ED-R1SD-049

Lab Sample ID: 500-201392-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	0.66		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW038S

Lab Sample ID: 500-201392-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	7.0		2.0		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW039N

Lab Sample ID: 500-201392-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	1.1		0.37		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201392-1	ED-R1SD-021-1	Solid	06/23/21 15:06	06/24/21 12:18	
500-201392-2	ED-R1SD-022-1	Solid	06/23/21 15:12	06/24/21 12:18	
500-201392-3	ED-R1SD-023-1	Solid	06/23/21 15:18	06/24/21 12:18	
500-201392-4	ED-R1SD-024-1	Solid	06/23/21 15:23	06/24/21 12:18	
500-201392-5	ED-R1SD-025-1	Solid	06/23/21 15:29	06/24/21 12:18	
500-201392-6	ED-R1SD-026-1	Solid	06/23/21 16:35	06/24/21 12:18	
500-201392-7	ED-R1SD-027-1	Solid	06/23/21 16:40	06/24/21 12:18	
500-201392-8	ED-R1SD-029-1	Solid	06/23/21 15:45	06/24/21 12:18	
500-201392-9	ED-R1SD-030-1	Solid	06/23/21 15:52	06/24/21 12:18	
500-201392-10	ED-R1SD-009-1	Solid	06/23/21 16:10	06/24/21 12:18	
500-201392-11	ED-R1SD-010-1	Solid	06/23/21 16:15	06/24/21 12:18	
500-201392-12	ED-R1SD-013-1	Solid	06/23/21 16:20	06/24/21 12:18	
500-201392-13	ED-R1SD-014-1	Solid	06/23/21 16:25	06/24/21 12:18	
500-201392-14	ED-R1SD-045	Solid	06/24/21 07:35	06/24/21 12:18	
500-201392-15	ED-R1SD-046	Solid	06/24/21 07:40	06/24/21 12:18	
500-201392-16	ED-R1SD-047	Solid	06/24/21 07:45	06/24/21 12:18	
500-201392-17	ED-R1SD-048	Solid	06/24/21 07:55	06/24/21 12:18	
500-201392-18	ED-R1SD-049	Solid	06/24/21 08:05	06/24/21 12:18	
500-201392-19	ED-R1SD-SW038S	Solid	06/24/21 08:10	06/24/21 12:18	
500-201392-20	ED-R1SD-SW039N	Solid	06/24/21 08:12	06/24/21 12:18	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-021-1

Lab Sample ID: 500-201392-1

Date Collected: 06/23/21 15:06

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 00:27	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 00:27	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 00:27	20
PCB-1242	1.5		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 00:27	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 00:27	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 00:27	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 00:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		49 - 129	06/24/21 16:06	06/25/21 00:27	20
DCB Decachlorobiphenyl	97		37 - 121	06/24/21 16:06	06/25/21 00:27	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-022-1

Lab Sample ID: 500-201392-2

Date Collected: 06/23/21 15:12

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 83.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 00:42	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 00:42	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 00:42	20
PCB-1242	4.9		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 00:42	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 00:42	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 00:42	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 00:42	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/24/21 16:06	06/25/21 00:42	20
DCB Decachlorobiphenyl	85		37 - 121	06/24/21 16:06	06/25/21 00:42	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-023-1

Lab Sample ID: 500-201392-3

Date Collected: 06/23/21 15:18

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 01:29	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 01:29	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 01:29	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 01:29	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 01:29	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 01:29	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 01:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		49 - 129	06/24/21 16:06	06/25/21 01:29	20
DCB Decachlorobiphenyl	105		37 - 121	06/24/21 16:06	06/25/21 01:29	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-024-1

Lab Sample ID: 500-201392-4

Date Collected: 06/23/21 15:23

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.2		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 14:15	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 14:15	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 14:15	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 14:15	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 14:15	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 14:15	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 14:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	06/24/21 16:06	06/25/21 14:15	20
DCB Decachlorobiphenyl	84		37 - 121	06/24/21 16:06	06/25/21 14:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-025-1

Lab Sample ID: 500-201392-5

Date Collected: 06/23/21 15:29

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 74.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.98		0.44		mg/Kg	☼	06/24/21 16:06	06/25/21 02:00	20
PCB-1221	<0.44		0.44		mg/Kg	☼	06/24/21 16:06	06/25/21 02:00	20
PCB-1232	<0.44		0.44		mg/Kg	☼	06/24/21 16:06	06/25/21 02:00	20
PCB-1242	<0.44		0.44		mg/Kg	☼	06/24/21 16:06	06/25/21 02:00	20
PCB-1248	<0.44		0.44		mg/Kg	☼	06/24/21 16:06	06/25/21 02:00	20
PCB-1254	<0.44		0.44		mg/Kg	☼	06/24/21 16:06	06/25/21 02:00	20
PCB-1260	<0.44		0.44		mg/Kg	☼	06/24/21 16:06	06/25/21 02:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/24/21 16:06	06/25/21 02:00	20
DCB Decachlorobiphenyl	85		37 - 121	06/24/21 16:06	06/25/21 02:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-026-1

Lab Sample ID: 500-201392-6

Date Collected: 06/23/21 16:35

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:15	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:15	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:15	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:15	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:15	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:15	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	113		49 - 129	06/24/21 16:06	06/25/21 02:15	20
DCB Decachlorobiphenyl	146	S1+	37 - 121	06/24/21 16:06	06/25/21 02:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-027-1

Lab Sample ID: 500-201392-7

Date Collected: 06/23/21 16:40

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 02:31	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 02:31	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 02:31	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 02:31	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 02:31	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 02:31	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 02:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	06/24/21 16:06	06/25/21 02:31	20
DCB Decachlorobiphenyl	105		37 - 121	06/24/21 16:06	06/25/21 02:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-029-1

Lab Sample ID: 500-201392-8

Date Collected: 06/23/21 15:45

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.0		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:46	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:46	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:46	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:46	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:46	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:46	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 02:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	101		49 - 129	06/24/21 16:06	06/25/21 02:46	20
DCB Decachlorobiphenyl	120		37 - 121	06/24/21 16:06	06/25/21 02:46	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-030-1

Lab Sample ID: 500-201392-9

Date Collected: 06/23/21 15:52

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 87.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:01	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:01	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:01	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:01	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:01	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:01	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	06/24/21 16:06	06/25/21 03:01	20
DCB Decachlorobiphenyl	129	S1+	37 - 121	06/24/21 16:06	06/25/21 03:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-009-1

Lab Sample ID: 500-201392-10

Date Collected: 06/23/21 16:10

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:48	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:48	20
PCB-1232	3.6		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:48	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:48	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:48	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:48	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 03:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		49 - 129	06/24/21 16:06	06/25/21 03:48	20
DCB Decachlorobiphenyl	99		37 - 121	06/24/21 16:06	06/25/21 03:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-010-1

Lab Sample ID: 500-201392-11

Date Collected: 06/23/21 16:15

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 87.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	2.2		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:03	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:03	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:03	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:03	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:03	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:03	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:03	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/24/21 16:06	06/25/21 04:03	20
DCB Decachlorobiphenyl	94		37 - 121	06/24/21 16:06	06/25/21 04:03	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-013-1

Lab Sample ID: 500-201392-12

Date Collected: 06/23/21 16:20

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:19	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:19	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:19	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:19	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:19	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:19	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/24/21 16:06	06/25/21 04:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/24/21 16:06	06/25/21 04:19	20
DCB Decachlorobiphenyl	105		37 - 121	06/24/21 16:06	06/25/21 04:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-014-1

Lab Sample ID: 500-201392-13

Date Collected: 06/23/21 16:25

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 88.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 14:30	20
PCB-1221	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 14:30	20
PCB-1232	2.9		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 14:30	20
PCB-1242	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 14:30	20
PCB-1248	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 14:30	20
PCB-1254	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 14:30	20
PCB-1260	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 14:30	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	99		49 - 129	06/24/21 16:06	06/25/21 14:30	20
DCB Decachlorobiphenyl	62		37 - 121	06/24/21 16:06	06/25/21 14:30	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-045

Lab Sample ID: 500-201392-14

Date Collected: 06/24/21 07:35

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 88.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 14:46	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 14:46	20
PCB-1232	1.0		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 14:46	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 14:46	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 14:46	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 14:46	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 14:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		49 - 129	06/24/21 16:06	06/25/21 14:46	20
DCB Decachlorobiphenyl	122	S1+	37 - 121	06/24/21 16:06	06/25/21 14:46	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-046

Lab Sample ID: 500-201392-15

Date Collected: 06/24/21 07:40

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 81.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 15:01	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 15:01	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 15:01	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 15:01	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 15:01	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 15:01	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 15:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	06/24/21 16:06	06/25/21 15:01	20
DCB Decachlorobiphenyl	110		37 - 121	06/24/21 16:06	06/25/21 15:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-047

Lab Sample ID: 500-201392-16

Date Collected: 06/24/21 07:45

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 05:20	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 05:20	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 05:20	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 05:20	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 05:20	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 05:20	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/24/21 16:06	06/25/21 05:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	06/24/21 16:06	06/25/21 05:20	20
DCB Decachlorobiphenyl	102		37 - 121	06/24/21 16:06	06/25/21 05:20	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-048

Lab Sample ID: 500-201392-17

Date Collected: 06/24/21 07:55

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 88.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 05:36	20
PCB-1221	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 05:36	20
PCB-1232	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 05:36	20
PCB-1242	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 05:36	20
PCB-1248	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 05:36	20
PCB-1254	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 05:36	20
PCB-1260	<0.36		0.36		mg/Kg	☼	06/24/21 16:06	06/25/21 05:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		49 - 129	06/24/21 16:06	06/25/21 05:36	20
DCB Decachlorobiphenyl	120		37 - 121	06/24/21 16:06	06/25/21 05:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-049

Lab Sample ID: 500-201392-18

Date Collected: 06/24/21 08:05

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:17	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:17	20
PCB-1232	0.66		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:17	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:17	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:17	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:17	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	06/24/21 16:06	06/25/21 15:17	20
DCB Decachlorobiphenyl	104		37 - 121	06/24/21 16:06	06/25/21 15:17	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-SW038S

Lab Sample ID: 500-201392-19

Date Collected: 06/24/21 08:10

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 81.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.0		2.0		mg/Kg	☼	06/24/21 16:06	06/25/21 15:32	100
PCB-1221	<2.0		2.0		mg/Kg	☼	06/24/21 16:06	06/25/21 15:32	100
PCB-1232	<2.0		2.0		mg/Kg	☼	06/24/21 16:06	06/25/21 15:32	100
PCB-1242	<2.0		2.0		mg/Kg	☼	06/24/21 16:06	06/25/21 15:32	100
PCB-1248	7.0		2.0		mg/Kg	☼	06/24/21 16:06	06/25/21 15:32	100
PCB-1254	<2.0		2.0		mg/Kg	☼	06/24/21 16:06	06/25/21 15:32	100
PCB-1260	<2.0		2.0		mg/Kg	☼	06/24/21 16:06	06/25/21 15:32	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	80		49 - 129	06/24/21 16:06	06/25/21 15:32	100
<i>DCB Decachlorobiphenyl</i>	97		37 - 121	06/24/21 16:06	06/25/21 15:32	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-SW039N

Lab Sample ID: 500-201392-20

Date Collected: 06/24/21 08:12

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 88.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:47	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:47	20
PCB-1232	1.1		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:47	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:47	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:47	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:47	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 16:06	06/25/21 15:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		49 - 129	06/24/21 16:06	06/25/21 15:47	20
DCB Decachlorobiphenyl	86		37 - 121	06/24/21 16:06	06/25/21 15:47	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

GC Semi VOA

Prep Batch: 606056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-1	ED-R1SD-021-1	Total/NA	Solid	3541	
500-201392-2	ED-R1SD-022-1	Total/NA	Solid	3541	
500-201392-3	ED-R1SD-023-1	Total/NA	Solid	3541	
500-201392-4	ED-R1SD-024-1	Total/NA	Solid	3541	
500-201392-5	ED-R1SD-025-1	Total/NA	Solid	3541	
500-201392-6	ED-R1SD-026-1	Total/NA	Solid	3541	
500-201392-7	ED-R1SD-027-1	Total/NA	Solid	3541	
500-201392-8	ED-R1SD-029-1	Total/NA	Solid	3541	
500-201392-9	ED-R1SD-030-1	Total/NA	Solid	3541	
500-201392-10	ED-R1SD-009-1	Total/NA	Solid	3541	
500-201392-11	ED-R1SD-010-1	Total/NA	Solid	3541	
500-201392-12	ED-R1SD-013-1	Total/NA	Solid	3541	
500-201392-13	ED-R1SD-014-1	Total/NA	Solid	3541	
500-201392-14	ED-R1SD-045	Total/NA	Solid	3541	
500-201392-15	ED-R1SD-046	Total/NA	Solid	3541	
500-201392-16	ED-R1SD-047	Total/NA	Solid	3541	
500-201392-17	ED-R1SD-048	Total/NA	Solid	3541	
500-201392-18	ED-R1SD-049	Total/NA	Solid	3541	
500-201392-19	ED-R1SD-SW038S	Total/NA	Solid	3541	
500-201392-20	ED-R1SD-SW039N	Total/NA	Solid	3541	
MB 500-606056/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-606056/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201392-9 MS	ED-R1SD-030-1	Total/NA	Solid	3541	
500-201392-9 MSD	ED-R1SD-030-1	Total/NA	Solid	3541	

Analysis Batch: 606114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-1	ED-R1SD-021-1	Total/NA	Solid	8082A	606056
500-201392-2	ED-R1SD-022-1	Total/NA	Solid	8082A	606056
500-201392-3	ED-R1SD-023-1	Total/NA	Solid	8082A	606056
500-201392-5	ED-R1SD-025-1	Total/NA	Solid	8082A	606056
500-201392-6	ED-R1SD-026-1	Total/NA	Solid	8082A	606056
500-201392-7	ED-R1SD-027-1	Total/NA	Solid	8082A	606056
500-201392-8	ED-R1SD-029-1	Total/NA	Solid	8082A	606056
500-201392-9	ED-R1SD-030-1	Total/NA	Solid	8082A	606056
500-201392-10	ED-R1SD-009-1	Total/NA	Solid	8082A	606056
500-201392-11	ED-R1SD-010-1	Total/NA	Solid	8082A	606056
500-201392-12	ED-R1SD-013-1	Total/NA	Solid	8082A	606056
500-201392-16	ED-R1SD-047	Total/NA	Solid	8082A	606056
500-201392-17	ED-R1SD-048	Total/NA	Solid	8082A	606056
MB 500-606056/1-A	Method Blank	Total/NA	Solid	8082A	606056
LCS 500-606056/2-A	Lab Control Sample	Total/NA	Solid	8082A	606056
500-201392-9 MS	ED-R1SD-030-1	Total/NA	Solid	8082A	606056
500-201392-9 MSD	ED-R1SD-030-1	Total/NA	Solid	8082A	606056

Analysis Batch: 606260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-4	ED-R1SD-024-1	Total/NA	Solid	8082A	606056
500-201392-13	ED-R1SD-014-1	Total/NA	Solid	8082A	606056
500-201392-14	ED-R1SD-045	Total/NA	Solid	8082A	606056
500-201392-15	ED-R1SD-046	Total/NA	Solid	8082A	606056

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

GC Semi VOA (Continued)

Analysis Batch: 606260 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-18	ED-R1SD-049	Total/NA	Solid	8082A	606056
500-201392-19	ED-R1SD-SW038S	Total/NA	Solid	8082A	606056
500-201392-20	ED-R1SD-SW039N	Total/NA	Solid	8082A	606056

General Chemistry

Analysis Batch: 606028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-1	ED-R1SD-021-1	Total/NA	Solid	Moisture	
500-201392-2	ED-R1SD-022-1	Total/NA	Solid	Moisture	
500-201392-3	ED-R1SD-023-1	Total/NA	Solid	Moisture	
500-201392-4	ED-R1SD-024-1	Total/NA	Solid	Moisture	
500-201392-5	ED-R1SD-025-1	Total/NA	Solid	Moisture	
500-201392-6	ED-R1SD-026-1	Total/NA	Solid	Moisture	
500-201392-7	ED-R1SD-027-1	Total/NA	Solid	Moisture	
500-201392-8	ED-R1SD-029-1	Total/NA	Solid	Moisture	
500-201392-9	ED-R1SD-030-1	Total/NA	Solid	Moisture	
500-201392-10	ED-R1SD-009-1	Total/NA	Solid	Moisture	
500-201392-11	ED-R1SD-010-1	Total/NA	Solid	Moisture	
500-201392-12	ED-R1SD-013-1	Total/NA	Solid	Moisture	
500-201392-13	ED-R1SD-014-1	Total/NA	Solid	Moisture	
500-201392-13 DU	ED-R1SD-014-1	Total/NA	Solid	Moisture	

Analysis Batch: 606048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-14	ED-R1SD-045	Total/NA	Solid	Moisture	
500-201392-15	ED-R1SD-046	Total/NA	Solid	Moisture	
500-201392-16	ED-R1SD-047	Total/NA	Solid	Moisture	
500-201392-17	ED-R1SD-048	Total/NA	Solid	Moisture	
500-201392-18	ED-R1SD-049	Total/NA	Solid	Moisture	
500-201392-19	ED-R1SD-SW038S	Total/NA	Solid	Moisture	
500-201392-20	ED-R1SD-SW039N	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (49-129)	DCBP1 (37-121)
500-201392-1	ED-R1SD-021-1	91	97
500-201392-2	ED-R1SD-022-1	71	85
500-201392-3	ED-R1SD-023-1	94	105
500-201392-4	ED-R1SD-024-1	69	84
500-201392-5	ED-R1SD-025-1	71	85
500-201392-6	ED-R1SD-026-1	113	146 S1+
500-201392-7	ED-R1SD-027-1	80	105
500-201392-8	ED-R1SD-029-1	101	120
500-201392-9	ED-R1SD-030-1	87	129 S1+
500-201392-9 MS	ED-R1SD-030-1	87	106
500-201392-9 MSD	ED-R1SD-030-1	79	101
500-201392-10	ED-R1SD-009-1	64	99
500-201392-11	ED-R1SD-010-1	71	94
500-201392-12	ED-R1SD-013-1	71	105
500-201392-13	ED-R1SD-014-1	99	62
500-201392-14	ED-R1SD-045	93	122 S1+
500-201392-15	ED-R1SD-046	74	110
500-201392-16	ED-R1SD-047	77	102
500-201392-17	ED-R1SD-048	92	120
500-201392-18	ED-R1SD-049	77	104
500-201392-19	ED-R1SD-SW038S	80	97
500-201392-20	ED-R1SD-SW039N	78	86
LCS 500-606056/2-A	Lab Control Sample	79	87
MB 500-606056/1-A	Method Blank	87	95

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606056/1-A
Matrix: Solid
Analysis Batch: 606114

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606056

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		06/24/21 16:06	06/24/21 23:56			20
PCB-1221	<0.33		0.33		mg/Kg		06/24/21 16:06	06/24/21 23:56			20
PCB-1232	<0.33		0.33		mg/Kg		06/24/21 16:06	06/24/21 23:56			20
PCB-1242	<0.33		0.33		mg/Kg		06/24/21 16:06	06/24/21 23:56			20
PCB-1248	<0.33		0.33		mg/Kg		06/24/21 16:06	06/24/21 23:56			20
PCB-1254	<0.33		0.33		mg/Kg		06/24/21 16:06	06/24/21 23:56			20
PCB-1260	<0.33		0.33		mg/Kg		06/24/21 16:06	06/24/21 23:56			20

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	87		49 - 129	06/24/21 16:06	06/24/21 23:56			20
DCB Decachlorobiphenyl	95		37 - 121	06/24/21 16:06	06/24/21 23:56			20

Lab Sample ID: LCS 500-606056/2-A
Matrix: Solid
Analysis Batch: 606114

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606056

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.36		mg/Kg		81	57 - 120	
PCB-1260	1.67	1.46		mg/Kg		87	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		49 - 129
DCB Decachlorobiphenyl	87		37 - 121

Lab Sample ID: 500-201392-9 MS
Matrix: Solid
Analysis Batch: 606114

Client Sample ID: ED-R1SD-030-1
Prep Type: Total/NA
Prep Batch: 606056

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.37		1.84	2.06		mg/Kg	☼	112	57 - 120	
PCB-1260	<0.37		1.84	1.57		mg/Kg	☼	85	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	87		49 - 129
DCB Decachlorobiphenyl	106		37 - 121

Lab Sample ID: 500-201392-9 MSD
Matrix: Solid
Analysis Batch: 606114

Client Sample ID: ED-R1SD-030-1
Prep Type: Total/NA
Prep Batch: 606056

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.37		1.85	1.75		mg/Kg	☼	95	57 - 120	16	30	
PCB-1260	<0.37		1.85	1.79		mg/Kg	☼	97	61 - 125	13	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		49 - 129
DCB Decachlorobiphenyl	101		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-021-1

Date Collected: 06/23/21 15:06

Date Received: 06/24/21 12:18

Lab Sample ID: 500-201392-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-021-1

Date Collected: 06/23/21 15:06

Date Received: 06/24/21 12:18

Lab Sample ID: 500-201392-1

Matrix: Solid

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 00:27	SS	TAL CHI

Client Sample ID: ED-R1SD-022-1

Date Collected: 06/23/21 15:12

Date Received: 06/24/21 12:18

Lab Sample ID: 500-201392-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-022-1

Date Collected: 06/23/21 15:12

Date Received: 06/24/21 12:18

Lab Sample ID: 500-201392-2

Matrix: Solid

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 00:42	SS	TAL CHI

Client Sample ID: ED-R1SD-023-1

Date Collected: 06/23/21 15:18

Date Received: 06/24/21 12:18

Lab Sample ID: 500-201392-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-023-1

Date Collected: 06/23/21 15:18

Date Received: 06/24/21 12:18

Lab Sample ID: 500-201392-3

Matrix: Solid

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 01:29	SS	TAL CHI

Client Sample ID: ED-R1SD-024-1

Date Collected: 06/23/21 15:23

Date Received: 06/24/21 12:18

Lab Sample ID: 500-201392-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-024-1

Lab Sample ID: 500-201392-4

Date Collected: 06/23/21 15:23

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 14:15	PJ1	TAL CHI

Client Sample ID: ED-R1SD-025-1

Lab Sample ID: 500-201392-5

Date Collected: 06/23/21 15:29

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-025-1

Lab Sample ID: 500-201392-5

Date Collected: 06/23/21 15:29

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 74.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 02:00	SS	TAL CHI

Client Sample ID: ED-R1SD-026-1

Lab Sample ID: 500-201392-6

Date Collected: 06/23/21 16:35

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-026-1

Lab Sample ID: 500-201392-6

Date Collected: 06/23/21 16:35

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 02:15	SS	TAL CHI

Client Sample ID: ED-R1SD-027-1

Lab Sample ID: 500-201392-7

Date Collected: 06/23/21 16:40

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-027-1

Lab Sample ID: 500-201392-7

Date Collected: 06/23/21 16:40

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 02:31	SS	TAL CHI

Client Sample ID: ED-R1SD-029-1

Lab Sample ID: 500-201392-8

Date Collected: 06/23/21 15:45

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-029-1

Lab Sample ID: 500-201392-8

Date Collected: 06/23/21 15:45

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 02:46	SS	TAL CHI

Client Sample ID: ED-R1SD-030-1

Lab Sample ID: 500-201392-9

Date Collected: 06/23/21 15:52

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-030-1

Lab Sample ID: 500-201392-9

Date Collected: 06/23/21 15:52

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 03:01	SS	TAL CHI

Client Sample ID: ED-R1SD-009-1

Lab Sample ID: 500-201392-10

Date Collected: 06/23/21 16:10

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-009-1

Lab Sample ID: 500-201392-10

Date Collected: 06/23/21 16:10

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 03:48	SS	TAL CHI

Client Sample ID: ED-R1SD-010-1

Lab Sample ID: 500-201392-11

Date Collected: 06/23/21 16:15

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-010-1

Lab Sample ID: 500-201392-11

Date Collected: 06/23/21 16:15

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 04:03	SS	TAL CHI

Client Sample ID: ED-R1SD-013-1

Lab Sample ID: 500-201392-12

Date Collected: 06/23/21 16:20

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Client Sample ID: ED-R1SD-013-1

Lab Sample ID: 500-201392-12

Date Collected: 06/23/21 16:20

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 04:19	SS	TAL CHI

Client Sample ID: ED-R1SD-014-1

Lab Sample ID: 500-201392-13

Date Collected: 06/23/21 16:25

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606028	06/24/21 14:40	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-014-1

Lab Sample ID: 500-201392-13

Date Collected: 06/23/21 16:25

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 14:30	PJ1	TAL CHI

Client Sample ID: ED-R1SD-045

Lab Sample ID: 500-201392-14

Date Collected: 06/24/21 07:35

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-045

Lab Sample ID: 500-201392-14

Date Collected: 06/24/21 07:35

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 14:46	PJ1	TAL CHI

Client Sample ID: ED-R1SD-046

Lab Sample ID: 500-201392-15

Date Collected: 06/24/21 07:40

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-046

Lab Sample ID: 500-201392-15

Date Collected: 06/24/21 07:40

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 15:01	PJ1	TAL CHI

Client Sample ID: ED-R1SD-047

Lab Sample ID: 500-201392-16

Date Collected: 06/24/21 07:45

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-047

Lab Sample ID: 500-201392-16

Date Collected: 06/24/21 07:45

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 05:20	SS	TAL CHI

Client Sample ID: ED-R1SD-048

Lab Sample ID: 500-201392-17

Date Collected: 06/24/21 07:55

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-048

Lab Sample ID: 500-201392-17

Date Collected: 06/24/21 07:55

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 05:36	SS	TAL CHI

Client Sample ID: ED-R1SD-049

Lab Sample ID: 500-201392-18

Date Collected: 06/24/21 08:05

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-049

Lab Sample ID: 500-201392-18

Date Collected: 06/24/21 08:05

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 15:17	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW038S

Lab Sample ID: 500-201392-19

Date Collected: 06/24/21 08:10

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Client Sample ID: ED-R1SD-SW038S

Lab Sample ID: 500-201392-19

Date Collected: 06/24/21 08:10

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		100	606260	06/25/21 15:32	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW039N

Lab Sample ID: 500-201392-20

Date Collected: 06/24/21 08:12

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW039N

Lab Sample ID: 500-201392-20

Date Collected: 06/24/21 08:12

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606056	06/24/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 15:47	PJ1	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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15

Chain of Custody Record



Client Information		Sampler: <i>BJORGESEN</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 7						
Client Contact: Jenny Rickford O'Brien		Phone:	E-Mail: Robin Kintz@Eurofinset.com	State of Origin:	Page: Page 7 of 12						
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: <i>500-201392</i>						
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		 500-201392 COC	Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R Na2SO3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:						
City: Knoxville	TAT Requested (days): <i>RUSH 24hr</i>										
State Zip: TN 37920	Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No										
Phone: 865-340-4914(Tel)	PO #: Purchase Order not required										
Email: jrickfordobrien@cecinc.com	WO #:										
Project Name: Arconic PCB Rush Project - Lafayette IN	Project #: 50019033										
Site:	SSOW#:										
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform. MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note	
				Preservation Code:		N					
1	<i>ED-RISD-021-1</i>		<i>6/23/21</i>	<i>1506</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
2	<i>ED-RISD-022-1</i>			<i>1512</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
3	<i>ED-RISD-023-1</i>			<i>1518</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
4	<i>ED-RISD-024-1</i>			<i>1523</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
5	<i>ED-RISD-025-1</i>			<i>1524</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
6	<i>ED-RISD-026-1</i>			<i>1635</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
7	<i>ED-RISD-027-1</i>			<i>1640</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
8	<i>ED-RISD-029-1</i>			<i>1545</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
9	<i>ED-RISD-030-1</i>			<i>1552</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>3</i>	
10	<i>ED-RISD-009-1</i>			<i>1610</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
11	<i>ED-RISD-010-1</i>		<i>✓</i>	<i>1615</i>	<i>C</i>	<i>S</i>			<i>X</i>	<i>1</i>	
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)				Special Instructions/QC Requirements							
Empty Kit Relinquished by:		Date		Time			Method of Shipment:				
Relinquished by: <i>Jenny Rickford</i>		Date/Time: <i>6/24/21 1110</i>		Company: <i>CEC</i>		Received by: <i>P. Neal</i>			Date/Time: <i>6/24/21 1110</i>		Company: <i>ETA</i>
Relinquished by: <i>P. Neal</i>		Date/Time: <i>6/24/21 1218</i>		Company: <i>ETA</i>		Received by: <i>Stephanie Hernandez</i>			Date/Time: <i>6/24/21 1218</i>		Company: <i>ETA-CHI</i>
Relinquished by:		Date/Time:		Company:		Received by:			Date/Time:		Company:
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>4.9-4.6</i>							

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: <i>T JOAUBENSA</i>		Lab PM: Kintz Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 8			
Client Contact: Jenny Rickford O'Brien		Phone:		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page: Page 8 of 12			
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested				Job #: <i>500-201392</i>			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No): Perform MS/MSD (Yes or No): 8082A - PCBs				Total Number of containers		Preservation Codes A HCL M Hexane B NaOH N None C - Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R - Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)	
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>									
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required									
Email: jrickenfordobrien@cecinc.com		WO #:									
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033									
Site:		SSOW#:									
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)			
								Preservation Code:			
								N			
<i>ED-RISD-013-1</i>		<i>6/23/21</i>		<i>1620</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-014-1</i>		<i>6/23/21</i>		<i>1625</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-045</i>		<i>6/24/21</i>		<i>0735</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-046</i>		<i>6/24/21</i>		<i>0740</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-047</i>		<i>6/24/21</i>		<i>0745</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-048</i>		<i>6/24/21</i>		<i>0755</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-049</i>		<i>6/24/21</i>		<i>0805</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-SW038S</i>		<i>6/24/21</i>		<i>0810</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-SW039N</i>		<i>6/24/21</i>		<i>0812</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-SW040S</i>		<i>6/24/21</i>		<i>0825</i>		<i>L S</i>		<i>S</i>			
<i>ED-RISD-SW041N</i>		<i>6/24/21</i>		<i>0827</i>		<i>L S</i>		<i>S</i>			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Other (specify)					Special Instructions/QC Requirements						
Empty Kit Relinquished by:		Date		Time		Method of Shipment:					
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/24/21 1110</i>		Company: <i>CEL</i>		Received by: <i>[Signature]</i>		Date/Time: <i>6/24/21 1110</i>		Company: <i>ETA</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/24/21 1218</i>		Company:		Received by: <i>Stephanie Hernandez</i>		Date/Time: <i>6/24/21 1218</i>		Company: <i>ETA-GTI</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:							

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: <i>ITSURGENSEN</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s)	COC No: 500-92691-41294 9								
Client Contact: Jenny Rickford O'Brien		Phone:	E-Mail: Robin Kintz@Eurofinset.com	State of Origin	Page 9 of 12								
Company: Civil & Environmental Consultants Inc		PWSID	Analysis Requested		Job #: <i>500-201392</i>								
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested	<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> <tr><td>Total Number of Containers</td><td></td></tr> </table>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of Containers		Preservation Codes A HCL M Hexane B - NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S - H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U - Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)
Field Filtered Sample (Yes or No)													
Perform MS/MSD (Yes or No)													
8082A - PCBs													
Total Number of Containers													
City: Knoxville		TAT Requested (days):											
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No											
Phone: 865-340-4914(Tel)		PO #:											
Email: jrnickfordobrien@cecinc.com		Purchase Order not required											
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033											
Site:		SSOW#:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of Containers	Special Instructions/Note			
				Preservation Code:		X	X	N					
<i>23</i>	<i>ED-RISD-SW 042S</i>	<i>6/24/21</i>	<i>0840</i>	<i>G</i>	<i>S</i>	<i>X</i>	<i>X</i>		<i>1</i>				
<i>24</i>	<i>ED-RISD-SW043W</i>	<i>6/24/21</i>	<i>0842</i>	<i>C</i>	<i>S</i>	<i>X</i>	<i>X</i>		<i>1</i>				
<i>25</i>	<i>ED-RISD-031-1</i>	<i>6/24/21</i>	<i>0920</i>	<i>C</i>	<i>S</i>	<i>X</i>	<i>X</i>		<i>1</i>				
<i>26</i>	<i>ED-RISD-DUP 4</i>	<i>6/23/21</i>	<i>1545</i>	<i>C</i>	<i>S</i>	<i>X</i>	<i>X</i>		<i>1</i>				
<i>27</i>	<i>ED-RISD-SW DUP 3</i>	<i>6/24/21</i>	<i>0825</i>	<i>C</i>	<i>S</i>	<i>X</i>	<i>X</i>		<i>1</i>				
<i>28</i>	<i>ED-RISD-SWDF (9-10)</i>	<i>6/23/21</i>	<i>1605</i>	<i>C</i>	<i>S</i>	<i>X</i>	<i>X</i>		<i>1</i>				
<i>29</i>	<i>ED-RISD-EB6</i>	<i>6/23/21</i>	<i>1700</i>	<i>G</i>	<i>W</i>	<i>X</i>	<i>X</i>		<i>2</i>				
<i>30</i>	<i>ED-RISD-EB7</i>	<i>6/24/21</i>	<i>1015</i>	<i>G</i>	<i>W</i>	<i>X</i>	<i>X</i>		<i>2</i>				
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I, II, III, IV Other (specify)						Special Instructions/QC Requirements							
Empty Kit Relinquished by:		Date		Time		Method of Shipment:							
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/24/21 1110</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>6/24/21 1110</i>		Company: <i>EA</i>			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/24/21 1218</i>		Company: <i>EA</i>		Received by: <i>Stephanie Hemondy</i>		Date/Time: <i>6/24/21 1218</i>		Company: <i>ETA-OH</i>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks									

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201392-1

Login Number: 201392

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-201392-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/28/2021 12:49:57 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

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Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Job ID: 500-201392-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201392-2

Comments

No additional comments.

Receipt

The samples were received on 6/24/2021 12:18 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

Receipt Exceptions

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): Sample #28 "ED-R1SD-SW0E(9-10)" Container label list "ED-R1SD-SW0E(9-10)N". Logged per COC.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Client Sample ID: ED-R1SD-EB6

Lab Sample ID: 500-201392-29

No Detections.

Client Sample ID: ED-R1SD-EB7

Lab Sample ID: 500-201392-30

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201392-29	ED-R1SD-EB6	Water	06/23/21 17:00	06/24/21 12:18	
500-201392-30	ED-R1SD-EB7	Water	06/24/21 10:15	06/24/21 12:18	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Client Sample ID: ED-R1SD-EB6

Lab Sample ID: 500-201392-29

Date Collected: 06/23/21 17:00

Matrix: Water

Date Received: 06/24/21 12:18

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00037		0.00037		mg/L		06/24/21 18:54	06/25/21 01:18	1
PCB-1221	<0.00037		0.00037		mg/L		06/24/21 18:54	06/25/21 01:18	1
PCB-1232	<0.00037		0.00037		mg/L		06/24/21 18:54	06/25/21 01:18	1
PCB-1242	<0.00037		0.00037		mg/L		06/24/21 18:54	06/25/21 01:18	1
PCB-1248	<0.00037		0.00037		mg/L		06/24/21 18:54	06/25/21 01:18	1
PCB-1254	<0.00037		0.00037		mg/L		06/24/21 18:54	06/25/21 01:18	1
PCB-1260	<0.00037		0.00037		mg/L		06/24/21 18:54	06/25/21 01:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	58		30 - 120	06/24/21 18:54	06/25/21 01:18	1
DCB Decachlorobiphenyl	44		30 - 140	06/24/21 18:54	06/25/21 01:18	1

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Client Sample ID: ED-R1SD-EB7

Lab Sample ID: 500-201392-30

Date Collected: 06/24/21 10:15

Matrix: Water

Date Received: 06/24/21 12:18

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00038		0.00038		mg/L		06/24/21 18:54	06/25/21 01:35	1
PCB-1221	<0.00038		0.00038		mg/L		06/24/21 18:54	06/25/21 01:35	1
PCB-1232	<0.00038		0.00038		mg/L		06/24/21 18:54	06/25/21 01:35	1
PCB-1242	<0.00038		0.00038		mg/L		06/24/21 18:54	06/25/21 01:35	1
PCB-1248	<0.00038		0.00038		mg/L		06/24/21 18:54	06/25/21 01:35	1
PCB-1254	<0.00038		0.00038		mg/L		06/24/21 18:54	06/25/21 01:35	1
PCB-1260	<0.00038		0.00038		mg/L		06/24/21 18:54	06/25/21 01:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		30 - 120	06/24/21 18:54	06/25/21 01:35	1
DCB Decachlorobiphenyl	39		30 - 140	06/24/21 18:54	06/25/21 01:35	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

GC Semi VOA

Analysis Batch: 606068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-29	ED-R1SD-EB6	Total/NA	Water	8082A	606088
500-201392-30	ED-R1SD-EB7	Total/NA	Water	8082A	606088
MB 500-606088/1-A	Method Blank	Total/NA	Water	8082A	606088
LCS 500-606088/2-A	Lab Control Sample	Total/NA	Water	8082A	606088
LCSD 500-606088/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	606088

Prep Batch: 606088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-29	ED-R1SD-EB6	Total/NA	Water	3510C	
500-201392-30	ED-R1SD-EB7	Total/NA	Water	3510C	
MB 500-606088/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-606088/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-606088/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201392-29	ED-R1SD-EB6	58	44
500-201392-30	ED-R1SD-EB7	65	39
LCS 500-606088/2-A	Lab Control Sample	79	90
LCSD 500-606088/3-A	Lab Control Sample Dup	87	94
MB 500-606088/1-A	Method Blank	78	104

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606088/1-A
Matrix: Water
Analysis Batch: 606068

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606088

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.00040		0.00040		mg/L		06/24/21 18:54	06/25/21 00:30			1
PCB-1221	<0.00040		0.00040		mg/L		06/24/21 18:54	06/25/21 00:30			1
PCB-1232	<0.00040		0.00040		mg/L		06/24/21 18:54	06/25/21 00:30			1
PCB-1242	<0.00040		0.00040		mg/L		06/24/21 18:54	06/25/21 00:30			1
PCB-1248	<0.00040		0.00040		mg/L		06/24/21 18:54	06/25/21 00:30			1
PCB-1254	<0.00040		0.00040		mg/L		06/24/21 18:54	06/25/21 00:30			1
PCB-1260	<0.00040		0.00040		mg/L		06/24/21 18:54	06/25/21 00:30			1

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	78		30 - 120	06/24/21 18:54		06/25/21 00:30		1
DCB Decachlorobiphenyl	104		30 - 140	06/24/21 18:54		06/25/21 00:30		1

Lab Sample ID: LCS 500-606088/2-A
Matrix: Water
Analysis Batch: 606068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606088

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
PCB-1016	0.00400	0.00351		mg/L		88	56 - 120	
PCB-1260	0.00400	0.00390		mg/L		98	53 - 137	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		30 - 120
DCB Decachlorobiphenyl	90		30 - 140

Lab Sample ID: LCSD 500-606088/3-A
Matrix: Water
Analysis Batch: 606068

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 606088

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
PCB-1016	0.00400	0.00385		mg/L		96	56 - 120	9	20	
PCB-1260	0.00400	0.00435		mg/L		109	53 - 137	11	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	87		30 - 120
DCB Decachlorobiphenyl	94		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Client Sample ID: ED-R1SD-EB6

Lab Sample ID: 500-201392-29

Date Collected: 06/23/21 17:00

Matrix: Water

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			606088	06/24/21 18:54	JP1	TAL CHI
Total/NA	Analysis	8082A		1	606068	06/25/21 01:18	PJ1	TAL CHI

Client Sample ID: ED-R1SD-EB7

Lab Sample ID: 500-201392-30

Date Collected: 06/24/21 10:15

Matrix: Water

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			606088	06/24/21 18:54	JP1	TAL CHI
Total/NA	Analysis	8082A		1	606068	06/25/21 01:35	PJ1	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

2

3

4

5

6

7

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9

10

11

12

13

14

15


Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: RJORGENSEN	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 7		
Client Contact: Jenny Rickford O'Brien		Phone:	E-Mail: Robin Kintz@Eurofinset.com	State of Origin:	Page 7 of 12		
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: 500-201392		
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:	 500-201392 COC		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)		
City: Knoxville		TAT Requested (days): RUSH 24hr					
State Zip: TN 37920		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required					
Email: jrnickfordobrien@cecinc.com		WO #:					
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033					
Site:		SSOW#:					
			Field Filtered Sample (Yes or No)	Perform. MS/MSD (Yes or No)	8082A - PCBs		
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Total Number of Containers	Special Instructions/Note
				Preservation Code:			
1	ED-RISD-021-1	6/23/21	1506	C	S	1	
2	ED-RISD-022-1		1512	C	S	1	
3	ED-RISD-023-1		1518	C	S	1	
4	ED-RISD-024-1		1523	C	S	1	
5	ED-RISD-025-1		1524	C	S	1	
6	ED-RISD-026-1		1635	C	S	1	
7	ED-RISD-027-1		1640	C	S	1	
8	ED-RISD-029-1		1545	C	S	1	
9	ED-RISD-030-1		1552	C	S	3	
10	ED-RISD-009-1		1610	C	S	1	
11	ED-RISD-010-1		1615	C	S	1	
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)				Special Instructions/QC Requirements			
Empty Kit Relinquished by:		Date	Time	Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 6/24/21 1110	Company: CEL	Received by: <i>[Signature]</i>		Date/Time: 6/24/21 1110	Company: EIA
Relinquished by: <i>[Signature]</i>		Date/Time: 6/24/21 1218	Company: EIA	Received by: <i>[Signature]</i>		Date/Time: 6/24/21 1218	Company: EIA-CHI
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 4.9-4.6			

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: T JOAUBENSA		Lab PM: Kintz Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 8					
Client Contact: Jenny Rickford O'Brien		Phone:		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page: Page 8 of 12					
Company: Civil & Environmental Consultants Inc			PWSID:		Analysis Requested					Job #: 500-201392			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		TAT Requested (days): RUSH 24hr		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		PO #:		Purchase Order not required			
City: Knoxville		State, Zip: TN 37920		Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		SSOW#:		Preservation Codes			
Phone: 865-340-4914(Tel)		Email: jricketfordobrien@cecinc.com		Site:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):		8082A - PCBs			
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		SSOW#:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):		8082A - PCBs			
Site:		SSOW#:		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):		8082A - PCBs		Total Number of containers			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Special Instructions/Note			
										Preservation Code:			
12	ED-RISD-013-1		6/23/21		1620		L S		X		1		
13	ED-RISD-014-1		6/23/21		1625		L S		X		1		
14	ED-RISD-045		6/24/21		0735		L S		X		1		
15	ED-RISD-046		↑		0740		L S		X		1		
16	ED-RISD-047		↑		0745		L S		X		1		
17	ED-RISD-048		↑		0755		L S		X		1		
18	ED-RISD-049		↑		0805		L S		X		1		
19	ED-RISD-SW038S		↑		0810		L S		X		1		
20	ED-RISD-SW039N		↑		0812		L S		X		1		
21	ED-RISD-SW040S		↑		0825		L S		X		1		
22	ED-RISD-SW041N		↓		0827		L S		X		3		
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Other (specify)						Special Instructions/QC Requirements							
Empty Kit Relinquished by:				Date		Time		Method of Shipment:					
Relinquished by: <i>[Signature]</i>				Date/Time: 6/24/21 1110		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 6/24/21 1110		Company: ETA	
Relinquished by: <i>[Signature]</i>				Date/Time: 6/24/21 1218		Company:		Received by: <i>[Signature]</i>		Date/Time: 6/24/21 1218		Company: ETA-GTI	
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:									

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: ITSURGENSEN		Lab PM: Kintz Robin M		Carrier Tracking No(s)		COC No: 500-92691-41294 9			
Client Contact: Jenny Rickford O'Brien		Phone:		E-Mail: Robin Kintz@Eurofinset.com		State of Origin		Page 9 of 12			
Company: Civil & Environmental Consultants Inc				PWSID		Analysis Requested					
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of Containers	
City: Knoxville		TAT Requested (days):									
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 865-340-4914(Tel)		PO #:									
Email: jrnickfordobrien@cecinc.com		Purchase Order not required									
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		WO #:		Job #: 500-201392		Preservation Codes			
Site:		SSOW#:						A HCL M Hexane B - NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S - H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U - Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Special Instructions/Note	
								Preservation Code:			
23	ED-RISD-SW 042S	6/22/21	0840	G	S						
24	ED-RISD-SW043W	6/24/21	0842	C	S						
25	ED-RISD-031-1	6/24/21	0920	C	S						
26	ED-RISD-DUP 4	6/23/21	1545	C	S						
27	ED-RISD-SW DUP 3	6/24/21	0825	C	S						
28	ED-RISD-SW0E (9-10)	6/23/21	1605	C	S						
29	ED-RISD-EB6	6/23/21	1700	G	W						
30	ED-RISD-EB7	6/24/21	1015	G	W						
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by:				Date		Time		Method of Shipment:			
Relinquished by: <i>[Signature]</i>				Date/Time: 6/24/21 1110		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 6/24/21 1110	
Relinquished by: <i>[Signature]</i>				Date/Time: 6/24/21 1218		Company: EA		Received by: Stephanie Hemondy		Date/Time: 6/24/21 1218	
Relinquished by:				Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks							

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201392-2

Login Number: 201392

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

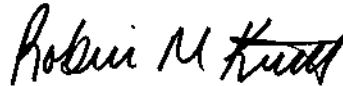
Laboratory Job ID: 500-201392-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/28/2021 12:48:47 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Job ID: 500-201392-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201392-3

Comments

No additional comments.

Receipt

The samples were received on 6/24/2021 12:18 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

Receipt Exceptions

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): Sample #28 "ED-R1SD-SW0E(9-10)" Container label list "ED-R1SD-SW0E(9-10)N". Logged per COC.

GC Semi VOA

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor: ED-R1SD-SW041N (500-201392-22), ED-R1SD-031-1 (500-201392-25) and ED-R1SD-DUP4 (500-201392-26).

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-606082 and analytical batch 500-606114 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8082A: The following sample was reported from the primary column due to Laboratory control sample (LCS) recovering outside control limits for PCB-1260 and PCB-1016 on the secondary column. The LCS was within limits on the primary column, therefore, the data have been reported.
(LCS 500-606082/2-A)

Method 8082A: The following sample was reported from the primary column due to DCB Decachlorobiphenyl, Tetrachloro-m-xylene, PCB-1016, PCB-1260 biased high for the continuing calibration verification (CCVIS) on the secondary column; therefore, the lower of the two results have been reported.
(CCVIS 500-606114/2)

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW040S (500-201392-21), ED-R1SD-SW042S (500-201392-23), ED-R1SD-SW043N (500-201392-24), ED-R1SD-SWDUP3 (500-201392-27) and ED-R1SD-SW0E(9-10) (500-201392-28). The reagent lot number used was: Z079073.

Method 8082A: DCB Decachlorobiphenyl Surrogate recovery for the following samples were outside control limits: ED-R1SD-SW040S (500-201392-21) and ED-R1SD-SW043N (500-201392-24). Tetrachloro-m-xylene Surrogate was within the control limits; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SW040S

Lab Sample ID: 500-201392-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.2		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW041N

Lab Sample ID: 500-201392-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.87		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW042S

Lab Sample ID: 500-201392-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.8		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW043N

Lab Sample ID: 500-201392-24

No Detections.

Client Sample ID: ED-R1SD-031-1

Lab Sample ID: 500-201392-25

No Detections.

Client Sample ID: ED-R1SD-DUP4

Lab Sample ID: 500-201392-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	0.90		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SWDUP3

Lab Sample ID: 500-201392-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	4.9		1.9		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW0E(9-10)

Lab Sample ID: 500-201392-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.56		0.43		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201392-21	ED-R1SD-SW040S	Solid	06/24/21 08:25	06/24/21 12:18	
500-201392-22	ED-R1SD-SW041N	Solid	06/24/21 08:27	06/24/21 12:18	
500-201392-23	ED-R1SD-SW042S	Solid	06/24/21 08:40	06/24/21 12:18	
500-201392-24	ED-R1SD-SW043N	Solid	06/24/21 08:42	06/24/21 12:18	
500-201392-25	ED-R1SD-031-1	Solid	06/24/21 09:20	06/24/21 12:18	
500-201392-26	ED-R1SD-DUP4	Solid	06/23/21 15:45	06/24/21 12:18	
500-201392-27	ED-R1SD-SWDUP3	Solid	06/24/21 08:25	06/24/21 12:18	
500-201392-28	ED-R1SD-SW0E(9-10)	Solid	06/23/21 16:05	06/24/21 12:18	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SW040S

Lab Sample ID: 500-201392-21

Date Collected: 06/24/21 08:25

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:18	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:18	20
PCB-1232	3.2		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:18	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:18	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:18	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:18	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	121		49 - 129	06/24/21 18:04	06/25/21 16:18	20
DCB Decachlorobiphenyl	126	S1+	37 - 121	06/24/21 18:04	06/25/21 16:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SW041N

Lab Sample ID: 500-201392-22

Date Collected: 06/24/21 08:27

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 89.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37	F1	0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 06:53	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 06:53	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 06:53	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 06:53	20
PCB-1248	0.87		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 06:53	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 06:53	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 06:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		49 - 129	06/24/21 18:04	06/25/21 06:53	20
DCB Decachlorobiphenyl	104		37 - 121	06/24/21 18:04	06/25/21 06:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SW042S

Lab Sample ID: 500-201392-23

Date Collected: 06/24/21 08:40

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 82.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/24/21 18:04	06/25/21 16:34	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/24/21 18:04	06/25/21 16:34	20
PCB-1232	3.8		0.41		mg/Kg	☼	06/24/21 18:04	06/25/21 16:34	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/24/21 18:04	06/25/21 16:34	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/24/21 18:04	06/25/21 16:34	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/24/21 18:04	06/25/21 16:34	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/24/21 18:04	06/25/21 16:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	06/24/21 18:04	06/25/21 16:34	20
DCB Decachlorobiphenyl	95		37 - 121	06/24/21 18:04	06/25/21 16:34	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SW043N

Lab Sample ID: 500-201392-24

Date Collected: 06/24/21 08:42

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:49	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:49	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:49	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:49	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:49	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:49	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 16:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	111		49 - 129	06/24/21 18:04	06/25/21 16:49	20
DCB Decachlorobiphenyl	125	S1+	37 - 121	06/24/21 18:04	06/25/21 16:49	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-031-1

Lab Sample ID: 500-201392-25

Date Collected: 06/24/21 09:20

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 89.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 08:10	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 08:10	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 08:10	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 08:10	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 08:10	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 08:10	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/24/21 18:04	06/25/21 08:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/24/21 18:04	06/25/21 08:10	20
DCB Decachlorobiphenyl	86		37 - 121	06/24/21 18:04	06/25/21 08:10	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-DUP4

Lab Sample ID: 500-201392-26

Date Collected: 06/23/21 15:45

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.90		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 08:25	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 08:25	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 08:25	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 08:25	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 08:25	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 08:25	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/24/21 18:04	06/25/21 08:25	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	06/24/21 18:04	06/25/21 08:25	20
DCB Decachlorobiphenyl	80		37 - 121	06/24/21 18:04	06/25/21 08:25	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SWDUP3

Lab Sample ID: 500-201392-27

Date Collected: 06/24/21 08:25

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.9		1.9		mg/Kg	☼	06/24/21 18:04	06/25/21 17:05	100
PCB-1221	<1.9		1.9		mg/Kg	☼	06/24/21 18:04	06/25/21 17:05	100
PCB-1232	<1.9		1.9		mg/Kg	☼	06/24/21 18:04	06/25/21 17:05	100
PCB-1242	<1.9		1.9		mg/Kg	☼	06/24/21 18:04	06/25/21 17:05	100
PCB-1248	4.9		1.9		mg/Kg	☼	06/24/21 18:04	06/25/21 17:05	100
PCB-1254	<1.9		1.9		mg/Kg	☼	06/24/21 18:04	06/25/21 17:05	100
PCB-1260	<1.9		1.9		mg/Kg	☼	06/24/21 18:04	06/25/21 17:05	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	59		49 - 129	06/24/21 18:04	06/25/21 17:05	100
DCB Decachlorobiphenyl	70		37 - 121	06/24/21 18:04	06/25/21 17:05	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SW0E(9-10)

Lab Sample ID: 500-201392-28

Date Collected: 06/23/21 16:05

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 77.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	06/24/21 18:04	06/25/21 17:20	20
PCB-1221	<0.43		0.43		mg/Kg	☼	06/24/21 18:04	06/25/21 17:20	20
PCB-1232	<0.43		0.43		mg/Kg	☼	06/24/21 18:04	06/25/21 17:20	20
PCB-1242	<0.43		0.43		mg/Kg	☼	06/24/21 18:04	06/25/21 17:20	20
PCB-1248	0.56		0.43		mg/Kg	☼	06/24/21 18:04	06/25/21 17:20	20
PCB-1254	<0.43		0.43		mg/Kg	☼	06/24/21 18:04	06/25/21 17:20	20
PCB-1260	<0.43		0.43		mg/Kg	☼	06/24/21 18:04	06/25/21 17:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		49 - 129	06/24/21 18:04	06/25/21 17:20	20
DCB Decachlorobiphenyl	90		37 - 121	06/24/21 18:04	06/25/21 17:20	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

GC Semi VOA

Prep Batch: 606082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-21	ED-R1SD-SW040S	Total/NA	Solid	3541	
500-201392-22	ED-R1SD-SW041N	Total/NA	Solid	3541	
500-201392-23	ED-R1SD-SW042S	Total/NA	Solid	3541	
500-201392-24	ED-R1SD-SW043N	Total/NA	Solid	3541	
500-201392-25	ED-R1SD-031-1	Total/NA	Solid	3541	
500-201392-26	ED-R1SD-DUP4	Total/NA	Solid	3541	
500-201392-27	ED-R1SD-SWDUP3	Total/NA	Solid	3541	
500-201392-28	ED-R1SD-SW0E(9-10)	Total/NA	Solid	3541	
MB 500-606082/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-606082/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201392-22 MS	ED-R1SD-SW041N	Total/NA	Solid	3541	
500-201392-22 MSD	ED-R1SD-SW041N	Total/NA	Solid	3541	

Analysis Batch: 606114

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-22	ED-R1SD-SW041N	Total/NA	Solid	8082A	606082
500-201392-25	ED-R1SD-031-1	Total/NA	Solid	8082A	606082
500-201392-26	ED-R1SD-DUP4	Total/NA	Solid	8082A	606082
MB 500-606082/1-A	Method Blank	Total/NA	Solid	8082A	606082
LCS 500-606082/2-A	Lab Control Sample	Total/NA	Solid	8082A	606082
500-201392-22 MS	ED-R1SD-SW041N	Total/NA	Solid	8082A	606082
500-201392-22 MSD	ED-R1SD-SW041N	Total/NA	Solid	8082A	606082

Analysis Batch: 606260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-21	ED-R1SD-SW040S	Total/NA	Solid	8082A	606082
500-201392-23	ED-R1SD-SW042S	Total/NA	Solid	8082A	606082
500-201392-24	ED-R1SD-SW043N	Total/NA	Solid	8082A	606082
500-201392-27	ED-R1SD-SWDUP3	Total/NA	Solid	8082A	606082
500-201392-28	ED-R1SD-SW0E(9-10)	Total/NA	Solid	8082A	606082

General Chemistry

Analysis Batch: 606048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201392-21	ED-R1SD-SW040S	Total/NA	Solid	Moisture	
500-201392-22	ED-R1SD-SW041N	Total/NA	Solid	Moisture	
500-201392-23	ED-R1SD-SW042S	Total/NA	Solid	Moisture	
500-201392-24	ED-R1SD-SW043N	Total/NA	Solid	Moisture	
500-201392-25	ED-R1SD-031-1	Total/NA	Solid	Moisture	
500-201392-26	ED-R1SD-DUP4	Total/NA	Solid	Moisture	
500-201392-27	ED-R1SD-SWDUP3	Total/NA	Solid	Moisture	
500-201392-28	ED-R1SD-SW0E(9-10)	Total/NA	Solid	Moisture	
500-201392-25 DU	ED-R1SD-031-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201392-21	ED-R1SD-SW040S	121	126 S1+
500-201392-22	ED-R1SD-SW041N	90	104
500-201392-22 MS	ED-R1SD-SW041N	82	101
500-201392-22 MSD	ED-R1SD-SW041N	90	106
500-201392-23	ED-R1SD-SW042S	83	95
500-201392-24	ED-R1SD-SW043N	111	125 S1+
500-201392-25	ED-R1SD-031-1	71	86
500-201392-26	ED-R1SD-DUP4	61	80
500-201392-27	ED-R1SD-SWDUP3	59	70
500-201392-28	ED-R1SD-SW0E(9-10)	86	90
LCS 500-606082/2-A	Lab Control Sample	102	123 S1+
MB 500-606082/1-A	Method Blank	121	139 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606082/1-A
Matrix: Solid
Analysis Batch: 606114

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606082

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		06/24/21 18:04	06/25/21 00:58		20	
PCB-1221	<0.33		0.33		mg/Kg		06/24/21 18:04	06/25/21 00:58		20	
PCB-1232	<0.33		0.33		mg/Kg		06/24/21 18:04	06/25/21 00:58		20	
PCB-1242	<0.33		0.33		mg/Kg		06/24/21 18:04	06/25/21 00:58		20	
PCB-1248	<0.33		0.33		mg/Kg		06/24/21 18:04	06/25/21 00:58		20	
PCB-1254	<0.33		0.33		mg/Kg		06/24/21 18:04	06/25/21 00:58		20	
PCB-1260	<0.33		0.33		mg/Kg		06/24/21 18:04	06/25/21 00:58		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	121		49 - 129	06/24/21 18:04	06/25/21 00:58		20	
DCB Decachlorobiphenyl	139	S1+	37 - 121	06/24/21 18:04	06/25/21 00:58		20	

Lab Sample ID: LCS 500-606082/2-A
Matrix: Solid
Analysis Batch: 606114

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606082

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.92		mg/Kg		115	57 - 120	
PCB-1260	1.67	2.06		mg/Kg		124	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	102		49 - 129
DCB Decachlorobiphenyl	123	S1+	37 - 121

Lab Sample ID: 500-201392-22 MS
Matrix: Solid
Analysis Batch: 606114

Client Sample ID: ED-R1SD-SW041N
Prep Type: Total/NA
Prep Batch: 606082

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<0.37	F1	1.85	2.52	F1	mg/Kg	☼	136	57 - 120	
PCB-1260	<0.37		1.85	1.95		mg/Kg	☼	105	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	82		49 - 129
DCB Decachlorobiphenyl	101		37 - 121

Lab Sample ID: 500-201392-22 MSD
Matrix: Solid
Analysis Batch: 606114

Client Sample ID: ED-R1SD-SW041N
Prep Type: Total/NA
Prep Batch: 606082

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<0.37	F1	1.85	2.52	F1	mg/Kg	☼	136	57 - 120	0	30	
PCB-1260	<0.37		1.85	1.98		mg/Kg	☼	107	61 - 125	2	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	90		49 - 129
DCB Decachlorobiphenyl	106		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SW040S

Lab Sample ID: 500-201392-21

Date Collected: 06/24/21 08:25

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW040S

Lab Sample ID: 500-201392-21

Date Collected: 06/24/21 08:25

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606082	06/24/21 18:04	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 16:18	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW041N

Lab Sample ID: 500-201392-22

Date Collected: 06/24/21 08:27

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW041N

Lab Sample ID: 500-201392-22

Date Collected: 06/24/21 08:27

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606082	06/24/21 18:04	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 06:53	SS	TAL CHI

Client Sample ID: ED-R1SD-SW042S

Lab Sample ID: 500-201392-23

Date Collected: 06/24/21 08:40

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW042S

Lab Sample ID: 500-201392-23

Date Collected: 06/24/21 08:40

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606082	06/24/21 18:04	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 16:34	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW043N

Lab Sample ID: 500-201392-24

Date Collected: 06/24/21 08:42

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SW043N

Lab Sample ID: 500-201392-24

Date Collected: 06/24/21 08:42

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606082	06/24/21 18:04	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 16:49	PJ1	TAL CHI

Client Sample ID: ED-R1SD-031-1

Lab Sample ID: 500-201392-25

Date Collected: 06/24/21 09:20

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-031-1

Lab Sample ID: 500-201392-25

Date Collected: 06/24/21 09:20

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606082	06/24/21 18:04	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 08:10	SS	TAL CHI

Client Sample ID: ED-R1SD-DUP4

Lab Sample ID: 500-201392-26

Date Collected: 06/23/21 15:45

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP4

Lab Sample ID: 500-201392-26

Date Collected: 06/23/21 15:45

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606082	06/24/21 18:04	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606114	06/25/21 08:25	SS	TAL CHI

Client Sample ID: ED-R1SD-SWDUP3

Lab Sample ID: 500-201392-27

Date Collected: 06/24/21 08:25

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Client Sample ID: ED-R1SD-SWDUP3

Lab Sample ID: 500-201392-27

Date Collected: 06/24/21 08:25

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606082	06/24/21 18:04	ACK	TAL CHI
Total/NA	Analysis	8082A		100	606260	06/25/21 17:05	PJ1	TAL CHI

Client Sample ID: ED-R1SD-SW0E(9-10)

Lab Sample ID: 500-201392-28

Date Collected: 06/23/21 16:05

Matrix: Solid

Date Received: 06/24/21 12:18

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606048	06/24/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW0E(9-10)

Lab Sample ID: 500-201392-28

Date Collected: 06/23/21 16:05

Matrix: Solid

Date Received: 06/24/21 12:18

Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606082	06/24/21 18:04	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606260	06/25/21 17:20	PJ1	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201392-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: RJORGENSEN	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 7				
Client Contact: Jenny Rickford O'Brien		Phone:	E-Mail: Robin Kintz@Eurofinset.com	State of Origin:	Page 7 of 12				
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: 500-201392				
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:	 500-201392 COC		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)				
City: Knoxville		TAT Requested (days): RUSH 24hr							
State Zip: TN 37920		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required							
Email: jrnickfordobrien@cecinc.com		WO #:	Field Filtered Sample (Yes or No)		Total Number of Containers				
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033	Perform: MS/MSD (Yes or No)						
Site:		SSOW#:	8082A - PCBs		Special Instructions/Note				
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform: MS/MSD (Yes or No)	8082A - PCBs	Total Number of Containers	Special Instructions/Note
1 ED-RISD-021-1	6/23/21	1506	C	S	X			1	
2 ED-RISD-022-1		1512	L	S	X			1	
3 ED-RISD-023-1		1518	L	S	X			1	
4 ED-RISD-024-1		1523	L	S	X			1	
5 ED-RISD-025-1		1524	L	S	X			1	
6 ED-RISD-026-1		1635	L	S	X			1	
7 ED-RISD-027-1		1640	L	S	X			1	
8 ED-RISD-029-1		1545	L	S	X			1	
9 ED-RISD-030-1		1552	L	S	X	X		3	
10 ED-RISD-009-1		1610	L	S	X			1	
11 ED-RISD-010-1		1615	L	S	X			1	
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)				Special Instructions/QC Requirements					
Empty Kit Relinquished by:		Date:	Time:		Method of Shipment:				
Relinquished by: <i>[Signature]</i>		Date/Time: 6/24/21 1110	Company: CEL		Received by: <i>[Signature]</i>		Date/Time: 6/24/21 1110	Company: EIA	
Relinquished by: <i>[Signature]</i>		Date/Time: 6/24/21 1218	Company: EIA		Received by: Stephanie Hernandez		Date/Time: 6/24/21 1218	Company: EIA-CHI	
Relinquished by:		Date/Time:	Company:		Received by:		Date/Time:	Company:	
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 4.974.6							

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
America

Client Information		Sampler: <i>T JOAUBEN</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 8		
Client Contact: Jenny Rickford O'Brien		Phone:	E-Mail: Robin Kintz@Eurofinset.com	State of Origin:	Page: Page 8 of 12		
Company: Civil & Environmental Consultants Inc		PWSID:		Job #: 500-201392			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Analysis Requested			
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>		Preservation Codes A HCL M Hexane B NaOH N None C - Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R - Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:			
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required					
Email: jrickenfordobrien@cecinc.com		WO #:					
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		Field Filtered Sample (Yes or No):			
Site:		SSOW#:		Perform: MS/MSD (Yes or No):			
				8082A - PCBs			
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Total Number of Containers	Special Instructions/Note
				Preservation Code:		N	
12	<i>ED-RISD-013-1</i>	<i>6/23/21</i>	<i>1620</i>	<i>L</i>	<i>S</i>	<i>X</i>	
13	<i>ED-RISD-014-1</i>	<i>6/23/21</i>	<i>1625</i>	<i>L</i>	<i>S</i>	<i>X</i>	
14	<i>ED-RISD-045</i>	<i>6/24/21</i>	<i>0735</i>	<i>L</i>	<i>S</i>	<i>X</i>	
15	<i>ED-RISD-046</i>	<i>6/24/21</i>	<i>0740</i>	<i>L</i>	<i>S</i>	<i>X</i>	
16	<i>ED-RISD-047</i>	<i>6/24/21</i>	<i>0745</i>	<i>L</i>	<i>S</i>	<i>X</i>	
17	<i>ED-RISD-048</i>	<i>6/24/21</i>	<i>0755</i>	<i>L</i>	<i>S</i>	<i>X</i>	
18	<i>ED-RISD-049</i>	<i>6/24/21</i>	<i>0805</i>	<i>L</i>	<i>S</i>	<i>X</i>	
19	<i>ED-RISD-SW0385</i>	<i>6/24/21</i>	<i>0810</i>	<i>L</i>	<i>S</i>	<i>X</i>	
20	<i>ED-RISD-SW039N</i>	<i>6/24/21</i>	<i>0812</i>	<i>L</i>	<i>S</i>	<i>X</i>	
21	<i>ED-RISD-SW040S</i>	<i>6/24/21</i>	<i>0825</i>	<i>L</i>	<i>S</i>	<i>X</i>	
22	<i>ED-RISD-SW041N</i>	<i>6/24/21</i>	<i>0827</i>	<i>L</i>	<i>S</i>	<i>X</i>	

Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Deliverable Requested <input checked="" type="checkbox"/> III <input type="checkbox"/> IV Other (specify)			Special Instructions/QC Requirements		
Empty Kit Relinquished by:		Date	Time	Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/24/21 1110</i>	Company: <i>CEL</i>	Received by: <i>[Signature]</i> Date/Time: <i>6/24/21 1110</i> Company: <i>ETA</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/24/21 1218</i>	Company:	Received by: <i>Stephanie Hernandez</i> Date/Time: <i>6/24/21 1218</i> Company: <i>ETA-CH</i>	
Relinquished by:		Date/Time:	Company:	Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:	



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201392-3

Login Number: 201392

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201511-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/29/2021 11:47:45 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
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www.eurofinsus.com/Env

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Job ID: 500-201511-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201511-1

Comments

No additional comments.

Receipt

The samples were received on 6/25/2021 4:38 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.1° C.

GC Semi VOA

Method 8082A: Surrogate recovery for the following method blank (MB) was outside the upper control limit: (MB 500-606309/1-A). This MB did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: Surrogate recovery for the following sample was outside the upper control limit: ED-R1SD-039-1 (500-201511-2). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The following samples were reported from the primary column due to PCB-1016, PCB-1260, Tetrachloro-m-xylene and DCB Decachlorobiphenyl recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The following samples appear to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: ED-R1SD-038-1 (500-201511-1) and ED-R1SD-057 (500-201511-10). The samples have been quantified and reported as PCB-1242. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-055 (500-201511-8).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-038-1

Lab Sample ID: 500-201511-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	4.2		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-039-1

Lab Sample ID: 500-201511-2

No Detections.

Client Sample ID: ED-R1SD-050

Lab Sample ID: 500-201511-3

No Detections.

Client Sample ID: ED-R1SD-051

Lab Sample ID: 500-201511-4

No Detections.

Client Sample ID: ED-R1SD-052

Lab Sample ID: 500-201511-5

No Detections.

Client Sample ID: ED-R1SD-053

Lab Sample ID: 500-201511-6

No Detections.

Client Sample ID: ED-R1SD-054

Lab Sample ID: 500-201511-7

No Detections.

Client Sample ID: ED-R1SD-055

Lab Sample ID: 500-201511-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.2		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-056

Lab Sample ID: 500-201511-9

No Detections.

Client Sample ID: ED-R1SD-057

Lab Sample ID: 500-201511-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.0		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-058

Lab Sample ID: 500-201511-11

No Detections.

Client Sample ID: ED-R1SD-059

Lab Sample ID: 500-201511-12

No Detections.

Client Sample ID: ED-R1SD-060

Lab Sample ID: 500-201511-13

No Detections.

Client Sample ID: ED-R1SD-061

Lab Sample ID: 500-201511-14

No Detections.

Client Sample ID: ED-R1SD-062

Lab Sample ID: 500-201511-15

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-063

Lab Sample ID: 500-201511-16

No Detections.

Client Sample ID: ED-R1SD-064

Lab Sample ID: 500-201511-17

No Detections.

Client Sample ID: ED-R1SD-065

Lab Sample ID: 500-201511-18

No Detections.

Client Sample ID: ED-R1SD-066

Lab Sample ID: 500-201511-19

No Detections.

Client Sample ID: ED-R1SD-067

Lab Sample ID: 500-201511-20

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201511-1	ED-R1SD-038-1	Solid	06/24/21 14:30	06/25/21 16:38	
500-201511-2	ED-R1SD-039-1	Solid	06/24/21 14:35	06/25/21 16:38	
500-201511-3	ED-R1SD-050	Solid	06/24/21 15:00	06/25/21 16:38	
500-201511-4	ED-R1SD-051	Solid	06/24/21 15:05	06/25/21 16:38	
500-201511-5	ED-R1SD-052	Solid	06/24/21 15:10	06/25/21 16:38	
500-201511-6	ED-R1SD-053	Solid	06/24/21 15:17	06/25/21 16:38	
500-201511-7	ED-R1SD-054	Solid	06/24/21 15:23	06/25/21 16:38	
500-201511-8	ED-R1SD-055	Solid	06/25/21 13:25	06/25/21 16:38	
500-201511-9	ED-R1SD-056	Solid	06/25/21 13:20	06/25/21 16:38	
500-201511-10	ED-R1SD-057	Solid	06/25/21 13:15	06/25/21 16:38	
500-201511-11	ED-R1SD-058	Solid	06/25/21 13:18	06/25/21 16:38	
500-201511-12	ED-R1SD-059	Solid	06/25/21 13:07	06/25/21 16:38	
500-201511-13	ED-R1SD-060	Solid	06/25/21 13:40	06/25/21 16:38	
500-201511-14	ED-R1SD-061	Solid	06/25/21 13:45	06/25/21 16:38	
500-201511-15	ED-R1SD-062	Solid	06/25/21 13:50	06/25/21 16:38	
500-201511-16	ED-R1SD-063	Solid	06/25/21 13:55	06/25/21 16:38	
500-201511-17	ED-R1SD-064	Solid	06/25/21 14:00	06/25/21 16:38	
500-201511-18	ED-R1SD-065	Solid	06/25/21 14:05	06/25/21 16:38	
500-201511-19	ED-R1SD-066	Solid	06/25/21 14:10	06/25/21 16:38	
500-201511-20	ED-R1SD-067	Solid	06/25/21 14:15	06/25/21 16:38	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-038-1

Lab Sample ID: 500-201511-1

Date Collected: 06/24/21 14:30

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:23	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:23	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:23	20
PCB-1242	4.2		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:23	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:23	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:23	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	06/25/21 17:05	06/26/21 01:23	20
DCB Decachlorobiphenyl	121		37 - 121	06/25/21 17:05	06/26/21 01:23	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-039-1

Lab Sample ID: 500-201511-2

Date Collected: 06/24/21 14:35

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:38	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:38	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:38	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:38	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:38	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:38	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/25/21 17:05	06/26/21 01:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		49 - 129	06/25/21 17:05	06/26/21 01:38	20
DCB Decachlorobiphenyl	122	S1+	37 - 121	06/25/21 17:05	06/26/21 01:38	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-050

Lab Sample ID: 500-201511-3

Date Collected: 06/24/21 15:00

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 69.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.46		0.46		mg/Kg	☼	06/25/21 17:05	06/26/21 01:53	20
PCB-1221	<0.46		0.46		mg/Kg	☼	06/25/21 17:05	06/26/21 01:53	20
PCB-1232	<0.46		0.46		mg/Kg	☼	06/25/21 17:05	06/26/21 01:53	20
PCB-1242	<0.46		0.46		mg/Kg	☼	06/25/21 17:05	06/26/21 01:53	20
PCB-1248	<0.46		0.46		mg/Kg	☼	06/25/21 17:05	06/26/21 01:53	20
PCB-1254	<0.46		0.46		mg/Kg	☼	06/25/21 17:05	06/26/21 01:53	20
PCB-1260	<0.46		0.46		mg/Kg	☼	06/25/21 17:05	06/26/21 01:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	06/25/21 17:05	06/26/21 01:53	20
DCB Decachlorobiphenyl	96		37 - 121	06/25/21 17:05	06/26/21 01:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-051

Lab Sample ID: 500-201511-4

Date Collected: 06/24/21 15:05

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 85.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:09	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:09	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:09	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:09	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:09	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:09	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:09	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	06/25/21 17:05	06/26/21 02:09	20
DCB Decachlorobiphenyl	105		37 - 121	06/25/21 17:05	06/26/21 02:09	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-052

Lab Sample ID: 500-201511-5

Date Collected: 06/24/21 15:10

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:24	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:24	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:24	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:24	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:24	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:24	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	06/25/21 17:05	06/26/21 02:24	20
DCB Decachlorobiphenyl	98		37 - 121	06/25/21 17:05	06/26/21 02:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-053

Lab Sample ID: 500-201511-6

Date Collected: 06/24/21 15:17

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:40	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:40	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:40	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:40	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:40	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:40	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 02:40	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	06/25/21 17:05	06/26/21 02:40	20
DCB Decachlorobiphenyl	114		37 - 121	06/25/21 17:05	06/26/21 02:40	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-054

Lab Sample ID: 500-201511-7

Date Collected: 06/24/21 15:23

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	✱	06/25/21 17:05	06/26/21 02:55	20
PCB-1221	<0.37		0.37		mg/Kg	✱	06/25/21 17:05	06/26/21 02:55	20
PCB-1232	<0.37		0.37		mg/Kg	✱	06/25/21 17:05	06/26/21 02:55	20
PCB-1242	<0.37		0.37		mg/Kg	✱	06/25/21 17:05	06/26/21 02:55	20
PCB-1248	<0.37		0.37		mg/Kg	✱	06/25/21 17:05	06/26/21 02:55	20
PCB-1254	<0.37		0.37		mg/Kg	✱	06/25/21 17:05	06/26/21 02:55	20
PCB-1260	<0.37		0.37		mg/Kg	✱	06/25/21 17:05	06/26/21 02:55	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	06/25/21 17:05	06/26/21 02:55	20
DCB Decachlorobiphenyl	92		37 - 121	06/25/21 17:05	06/26/21 02:55	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-055

Lab Sample ID: 500-201511-8

Date Collected: 06/25/21 13:25

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 81.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:11	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:11	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:11	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:11	20
PCB-1248	2.2		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:11	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:11	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:11	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		49 - 129	06/25/21 17:05	06/26/21 03:11	20
DCB Decachlorobiphenyl	86		37 - 121	06/25/21 17:05	06/26/21 03:11	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-056

Lab Sample ID: 500-201511-9

Date Collected: 06/25/21 13:20

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 78.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:26	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:26	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:26	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:26	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:26	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:26	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	06/25/21 17:05	06/26/21 03:26	20
DCB Decachlorobiphenyl	79		37 - 121	06/25/21 17:05	06/26/21 03:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-057

Lab Sample ID: 500-201511-10

Date Collected: 06/25/21 13:15

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 03:41	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 03:41	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 03:41	20
PCB-1242	2.0		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 03:41	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 03:41	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 03:41	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 03:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	82		49 - 129	06/25/21 17:05	06/26/21 03:41	20
<i>DCB Decachlorobiphenyl</i>	114		37 - 121	06/25/21 17:05	06/26/21 03:41	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-058

Lab Sample ID: 500-201511-11

Date Collected: 06/25/21 13:18

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:57	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:57	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:57	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:57	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:57	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:57	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 03:57	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	06/25/21 17:05	06/26/21 03:57	20
DCB Decachlorobiphenyl	100		37 - 121	06/25/21 17:05	06/26/21 03:57	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-059

Lab Sample ID: 500-201511-12

Date Collected: 06/25/21 13:07

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 81.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:12	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:12	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:12	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:12	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:12	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:12	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		49 - 129	06/25/21 17:05	06/26/21 04:12	20
DCB Decachlorobiphenyl	88		37 - 121	06/25/21 17:05	06/26/21 04:12	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-060

Lab Sample ID: 500-201511-13

Date Collected: 06/25/21 13:40

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 83.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:28	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:28	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:28	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:28	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:28	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:28	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 04:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	58		49 - 129	06/25/21 17:05	06/26/21 04:28	20
DCB Decachlorobiphenyl	91		37 - 121	06/25/21 17:05	06/26/21 04:28	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-061

Lab Sample ID: 500-201511-14

Date Collected: 06/25/21 13:45

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 79.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/25/21 17:05	06/26/21 04:43	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/25/21 17:05	06/26/21 04:43	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/25/21 17:05	06/26/21 04:43	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/25/21 17:05	06/26/21 04:43	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/25/21 17:05	06/26/21 04:43	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/25/21 17:05	06/26/21 04:43	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/25/21 17:05	06/26/21 04:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	06/25/21 17:05	06/26/21 04:43	20
DCB Decachlorobiphenyl	91		37 - 121	06/25/21 17:05	06/26/21 04:43	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-062

Lab Sample ID: 500-201511-15

Date Collected: 06/25/21 13:50

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 84.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 05:29	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 05:29	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 05:29	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 05:29	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 05:29	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 05:29	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/25/21 17:05	06/26/21 05:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	06/25/21 17:05	06/26/21 05:29	20
DCB Decachlorobiphenyl	105		37 - 121	06/25/21 17:05	06/26/21 05:29	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-063

Lab Sample ID: 500-201511-16

Date Collected: 06/25/21 13:55

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 78.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	06/25/21 17:05	06/26/21 05:45	20
PCB-1221	<0.42		0.42		mg/Kg	☼	06/25/21 17:05	06/26/21 05:45	20
PCB-1232	<0.42		0.42		mg/Kg	☼	06/25/21 17:05	06/26/21 05:45	20
PCB-1242	<0.42		0.42		mg/Kg	☼	06/25/21 17:05	06/26/21 05:45	20
PCB-1248	<0.42		0.42		mg/Kg	☼	06/25/21 17:05	06/26/21 05:45	20
PCB-1254	<0.42		0.42		mg/Kg	☼	06/25/21 17:05	06/26/21 05:45	20
PCB-1260	<0.42		0.42		mg/Kg	☼	06/25/21 17:05	06/26/21 05:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	06/25/21 17:05	06/26/21 05:45	20
DCB Decachlorobiphenyl	98		37 - 121	06/25/21 17:05	06/26/21 05:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-064

Lab Sample ID: 500-201511-17

Date Collected: 06/25/21 14:00

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:00	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:00	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:00	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:00	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:00	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:00	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	06/25/21 17:05	06/26/21 06:00	20
DCB Decachlorobiphenyl	95		37 - 121	06/25/21 17:05	06/26/21 06:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-065

Lab Sample ID: 500-201511-18

Date Collected: 06/25/21 14:05

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:16	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:16	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:16	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:16	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:16	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:16	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:16	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	06/25/21 17:05	06/26/21 06:16	20
DCB Decachlorobiphenyl	94		37 - 121	06/25/21 17:05	06/26/21 06:16	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-066

Lab Sample ID: 500-201511-19

Date Collected: 06/25/21 14:10

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 85.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:31	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:31	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:31	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:31	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:31	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:31	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/25/21 17:05	06/26/21 06:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/25/21 17:05	06/26/21 06:31	20
DCB Decachlorobiphenyl	96		37 - 121	06/25/21 17:05	06/26/21 06:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-067

Lab Sample ID: 500-201511-20

Date Collected: 06/25/21 14:15

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:47	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:47	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:47	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:47	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:47	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:47	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/25/21 17:05	06/26/21 06:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	06/25/21 17:05	06/26/21 06:47	20
DCB Decachlorobiphenyl	119		37 - 121	06/25/21 17:05	06/26/21 06:47	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

GC Semi VOA

Prep Batch: 606309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201511-1	ED-R1SD-038-1	Total/NA	Solid	3541	
500-201511-2	ED-R1SD-039-1	Total/NA	Solid	3541	
500-201511-3	ED-R1SD-050	Total/NA	Solid	3541	
500-201511-4	ED-R1SD-051	Total/NA	Solid	3541	
500-201511-5	ED-R1SD-052	Total/NA	Solid	3541	
500-201511-6	ED-R1SD-053	Total/NA	Solid	3541	
500-201511-7	ED-R1SD-054	Total/NA	Solid	3541	
500-201511-8	ED-R1SD-055	Total/NA	Solid	3541	
500-201511-9	ED-R1SD-056	Total/NA	Solid	3541	
500-201511-10	ED-R1SD-057	Total/NA	Solid	3541	
500-201511-11	ED-R1SD-058	Total/NA	Solid	3541	
500-201511-12	ED-R1SD-059	Total/NA	Solid	3541	
500-201511-13	ED-R1SD-060	Total/NA	Solid	3541	
500-201511-14	ED-R1SD-061	Total/NA	Solid	3541	
500-201511-15	ED-R1SD-062	Total/NA	Solid	3541	
500-201511-16	ED-R1SD-063	Total/NA	Solid	3541	
500-201511-17	ED-R1SD-064	Total/NA	Solid	3541	
500-201511-18	ED-R1SD-065	Total/NA	Solid	3541	
500-201511-19	ED-R1SD-066	Total/NA	Solid	3541	
500-201511-20	ED-R1SD-067	Total/NA	Solid	3541	
MB 500-606309/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-606309/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201511-14 MS	ED-R1SD-061	Total/NA	Solid	3541	
500-201511-14 MSD	ED-R1SD-061	Total/NA	Solid	3541	

Analysis Batch: 606336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201511-1	ED-R1SD-038-1	Total/NA	Solid	8082A	606309
500-201511-2	ED-R1SD-039-1	Total/NA	Solid	8082A	606309
500-201511-3	ED-R1SD-050	Total/NA	Solid	8082A	606309
500-201511-4	ED-R1SD-051	Total/NA	Solid	8082A	606309
500-201511-5	ED-R1SD-052	Total/NA	Solid	8082A	606309
500-201511-6	ED-R1SD-053	Total/NA	Solid	8082A	606309
500-201511-7	ED-R1SD-054	Total/NA	Solid	8082A	606309
500-201511-8	ED-R1SD-055	Total/NA	Solid	8082A	606309
500-201511-9	ED-R1SD-056	Total/NA	Solid	8082A	606309
500-201511-10	ED-R1SD-057	Total/NA	Solid	8082A	606309
500-201511-11	ED-R1SD-058	Total/NA	Solid	8082A	606309
500-201511-12	ED-R1SD-059	Total/NA	Solid	8082A	606309
500-201511-13	ED-R1SD-060	Total/NA	Solid	8082A	606309
500-201511-14	ED-R1SD-061	Total/NA	Solid	8082A	606309
500-201511-15	ED-R1SD-062	Total/NA	Solid	8082A	606309
500-201511-16	ED-R1SD-063	Total/NA	Solid	8082A	606309
500-201511-17	ED-R1SD-064	Total/NA	Solid	8082A	606309
500-201511-18	ED-R1SD-065	Total/NA	Solid	8082A	606309
500-201511-19	ED-R1SD-066	Total/NA	Solid	8082A	606309
500-201511-20	ED-R1SD-067	Total/NA	Solid	8082A	606309
MB 500-606309/1-A	Method Blank	Total/NA	Solid	8082A	606309
LCS 500-606309/2-A	Lab Control Sample	Total/NA	Solid	8082A	606309
500-201511-14 MS	ED-R1SD-061	Total/NA	Solid	8082A	606309
500-201511-14 MSD	ED-R1SD-061	Total/NA	Solid	8082A	606309

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

General Chemistry

Analysis Batch: 606405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201511-1	ED-R1SD-038-1	Total/NA	Solid	Moisture	
500-201511-2	ED-R1SD-039-1	Total/NA	Solid	Moisture	
500-201511-3	ED-R1SD-050	Total/NA	Solid	Moisture	
500-201511-4	ED-R1SD-051	Total/NA	Solid	Moisture	
500-201511-5	ED-R1SD-052	Total/NA	Solid	Moisture	
500-201511-6	ED-R1SD-053	Total/NA	Solid	Moisture	
500-201511-7	ED-R1SD-054	Total/NA	Solid	Moisture	
500-201511-8	ED-R1SD-055	Total/NA	Solid	Moisture	
500-201511-9	ED-R1SD-056	Total/NA	Solid	Moisture	
500-201511-10	ED-R1SD-057	Total/NA	Solid	Moisture	
500-201511-11	ED-R1SD-058	Total/NA	Solid	Moisture	
500-201511-12	ED-R1SD-059	Total/NA	Solid	Moisture	
500-201511-13	ED-R1SD-060	Total/NA	Solid	Moisture	
500-201511-14	ED-R1SD-061	Total/NA	Solid	Moisture	
500-201511-15	ED-R1SD-062	Total/NA	Solid	Moisture	
500-201511-16	ED-R1SD-063	Total/NA	Solid	Moisture	
500-201511-17	ED-R1SD-064	Total/NA	Solid	Moisture	
500-201511-18	ED-R1SD-065	Total/NA	Solid	Moisture	
500-201511-19	ED-R1SD-066	Total/NA	Solid	Moisture	
500-201511-20	ED-R1SD-067	Total/NA	Solid	Moisture	
500-201511-1 DU	ED-R1SD-038-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201511-1	ED-R1SD-038-1	89	121
500-201511-2	ED-R1SD-039-1	93	122 S1+
500-201511-3	ED-R1SD-050	81	96
500-201511-4	ED-R1SD-051	80	105
500-201511-5	ED-R1SD-052	74	98
500-201511-6	ED-R1SD-053	83	114
500-201511-7	ED-R1SD-054	65	92
500-201511-8	ED-R1SD-055	64	86
500-201511-9	ED-R1SD-056	65	79
500-201511-10	ED-R1SD-057	82	114
500-201511-11	ED-R1SD-058	69	100
500-201511-12	ED-R1SD-059	57	88
500-201511-13	ED-R1SD-060	58	91
500-201511-14	ED-R1SD-061	65	91
500-201511-14 MS	ED-R1SD-061	61	86
500-201511-14 MSD	ED-R1SD-061	74	93
500-201511-15	ED-R1SD-062	81	105
500-201511-16	ED-R1SD-063	74	98
500-201511-17	ED-R1SD-064	63	95
500-201511-18	ED-R1SD-065	60	94
500-201511-19	ED-R1SD-066	68	96
500-201511-20	ED-R1SD-067	87	119
LCS 500-606309/2-A	Lab Control Sample	75	116
MB 500-606309/1-A	Method Blank	132 S1+	153 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606309/1-A
Matrix: Solid
Analysis Batch: 606336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606309

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/25/21 17:05	06/26/21 00:52	20
PCB-1221	<0.33		0.33		mg/Kg		06/25/21 17:05	06/26/21 00:52	20
PCB-1232	<0.33		0.33		mg/Kg		06/25/21 17:05	06/26/21 00:52	20
PCB-1242	<0.33		0.33		mg/Kg		06/25/21 17:05	06/26/21 00:52	20
PCB-1248	<0.33		0.33		mg/Kg		06/25/21 17:05	06/26/21 00:52	20
PCB-1254	<0.33		0.33		mg/Kg		06/25/21 17:05	06/26/21 00:52	20
PCB-1260	<0.33		0.33		mg/Kg		06/25/21 17:05	06/26/21 00:52	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	132	S1+	49 - 129	06/25/21 17:05	06/26/21 00:52	20
DCB Decachlorobiphenyl	153	S1+	37 - 121	06/25/21 17:05	06/26/21 00:52	20

Lab Sample ID: LCS 500-606309/2-A
Matrix: Solid
Analysis Batch: 606336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606309

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.65		mg/Kg		99	57 - 120
PCB-1260	1.67	1.87		mg/Kg		112	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	75		49 - 129
DCB Decachlorobiphenyl	116		37 - 121

Lab Sample ID: 500-201511-14 MS
Matrix: Solid
Analysis Batch: 606336

Client Sample ID: ED-R1SD-061
Prep Type: Total/NA
Prep Batch: 606309

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.41		2.03	1.62		mg/Kg	☼	80	57 - 120
PCB-1260	<0.41		2.03	1.66		mg/Kg	☼	82	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	61		49 - 129
DCB Decachlorobiphenyl	86		37 - 121

Lab Sample ID: 500-201511-14 MSD
Matrix: Solid
Analysis Batch: 606336

Client Sample ID: ED-R1SD-061
Prep Type: Total/NA
Prep Batch: 606309

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.41		2.08	1.82		mg/Kg	☼	88	57 - 120	12	30
PCB-1260	<0.41		2.08	1.90		mg/Kg	☼	91	61 - 125	13	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	74		49 - 129
DCB Decachlorobiphenyl	93		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-038-1

Date Collected: 06/24/21 14:30

Date Received: 06/25/21 16:38

Lab Sample ID: 500-201511-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-038-1

Date Collected: 06/24/21 14:30

Date Received: 06/25/21 16:38

Lab Sample ID: 500-201511-1

Matrix: Solid

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 01:23	SS	TAL CHI

Client Sample ID: ED-R1SD-039-1

Date Collected: 06/24/21 14:35

Date Received: 06/25/21 16:38

Lab Sample ID: 500-201511-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-039-1

Date Collected: 06/24/21 14:35

Date Received: 06/25/21 16:38

Lab Sample ID: 500-201511-2

Matrix: Solid

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 01:38	SS	TAL CHI

Client Sample ID: ED-R1SD-050

Date Collected: 06/24/21 15:00

Date Received: 06/25/21 16:38

Lab Sample ID: 500-201511-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-050

Date Collected: 06/24/21 15:00

Date Received: 06/25/21 16:38

Lab Sample ID: 500-201511-3

Matrix: Solid

Percent Solids: 69.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 01:53	SS	TAL CHI

Client Sample ID: ED-R1SD-051

Date Collected: 06/24/21 15:05

Date Received: 06/25/21 16:38

Lab Sample ID: 500-201511-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-051

Lab Sample ID: 500-201511-4

Date Collected: 06/24/21 15:05

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 02:09	SS	TAL CHI

Client Sample ID: ED-R1SD-052

Lab Sample ID: 500-201511-5

Date Collected: 06/24/21 15:10

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-052

Lab Sample ID: 500-201511-5

Date Collected: 06/24/21 15:10

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 02:24	SS	TAL CHI

Client Sample ID: ED-R1SD-053

Lab Sample ID: 500-201511-6

Date Collected: 06/24/21 15:17

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-053

Lab Sample ID: 500-201511-6

Date Collected: 06/24/21 15:17

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 02:40	SS	TAL CHI

Client Sample ID: ED-R1SD-054

Lab Sample ID: 500-201511-7

Date Collected: 06/24/21 15:23

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-054

Lab Sample ID: 500-201511-7

Date Collected: 06/24/21 15:23

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 02:55	SS	TAL CHI

Client Sample ID: ED-R1SD-055

Lab Sample ID: 500-201511-8

Date Collected: 06/25/21 13:25

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-055

Lab Sample ID: 500-201511-8

Date Collected: 06/25/21 13:25

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 03:11	SS	TAL CHI

Client Sample ID: ED-R1SD-056

Lab Sample ID: 500-201511-9

Date Collected: 06/25/21 13:20

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-056

Lab Sample ID: 500-201511-9

Date Collected: 06/25/21 13:20

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 03:26	SS	TAL CHI

Client Sample ID: ED-R1SD-057

Lab Sample ID: 500-201511-10

Date Collected: 06/25/21 13:15

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-057

Lab Sample ID: 500-201511-10

Date Collected: 06/25/21 13:15

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 03:41	SS	TAL CHI

Client Sample ID: ED-R1SD-058

Lab Sample ID: 500-201511-11

Date Collected: 06/25/21 13:18

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-058

Lab Sample ID: 500-201511-11

Date Collected: 06/25/21 13:18

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 03:57	SS	TAL CHI

Client Sample ID: ED-R1SD-059

Lab Sample ID: 500-201511-12

Date Collected: 06/25/21 13:07

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-059

Lab Sample ID: 500-201511-12

Date Collected: 06/25/21 13:07

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 81.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 04:12	SS	TAL CHI

Client Sample ID: ED-R1SD-060

Lab Sample ID: 500-201511-13

Date Collected: 06/25/21 13:40

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-060

Lab Sample ID: 500-201511-13

Date Collected: 06/25/21 13:40

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 04:28	SS	TAL CHI

Client Sample ID: ED-R1SD-061

Lab Sample ID: 500-201511-14

Date Collected: 06/25/21 13:45

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-061

Lab Sample ID: 500-201511-14

Date Collected: 06/25/21 13:45

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 04:43	SS	TAL CHI

Client Sample ID: ED-R1SD-062

Lab Sample ID: 500-201511-15

Date Collected: 06/25/21 13:50

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-062

Lab Sample ID: 500-201511-15

Date Collected: 06/25/21 13:50

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 05:29	SS	TAL CHI

Client Sample ID: ED-R1SD-063

Lab Sample ID: 500-201511-16

Date Collected: 06/25/21 13:55

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-063

Lab Sample ID: 500-201511-16

Date Collected: 06/25/21 13:55

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 05:45	SS	TAL CHI

Client Sample ID: ED-R1SD-064

Lab Sample ID: 500-201511-17

Date Collected: 06/25/21 14:00

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-064

Lab Sample ID: 500-201511-17

Date Collected: 06/25/21 14:00

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 06:00	SS	TAL CHI

Client Sample ID: ED-R1SD-065

Lab Sample ID: 500-201511-18

Date Collected: 06/25/21 14:05

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-065

Lab Sample ID: 500-201511-18

Date Collected: 06/25/21 14:05

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 06:16	SS	TAL CHI

Client Sample ID: ED-R1SD-066

Lab Sample ID: 500-201511-19

Date Collected: 06/25/21 14:10

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Client Sample ID: ED-R1SD-066

Lab Sample ID: 500-201511-19

Date Collected: 06/25/21 14:10

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 06:31	SS	TAL CHI

Client Sample ID: ED-R1SD-067

Lab Sample ID: 500-201511-20

Date Collected: 06/25/21 14:15

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606405	06/28/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-067

Lab Sample ID: 500-201511-20

Date Collected: 06/25/21 14:15

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606309	06/25/21 17:05	JP1	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 06:47	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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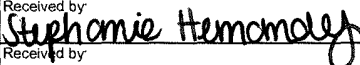
Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



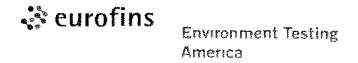
Environment Testing
 America

Client Information		Sampler: ETORGENSEN		Lab PM: Kintz Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 6																																																																																																																																			
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page 6 of 12																																																																																																																																			
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested																																																																																																																																					
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		 500-201511 COC		Job # 500-201511		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S - H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)																																																																																																																																			
City: Knoxville		TAT Requested (days): RUSH 24hr																																																																																																																																									
State, Zip: TN 37920		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																																																																																									
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																																																																																																																																									
Email: jricketfordobrien@cecinc.com		WO #:																																																																																																																																									
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A PCBs		Total Number of containers		Other:																																																																																																																																			
Site:		SSOW#:																																																																																																																																									
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:5%;">Sample Identification</th> <th style="width:10%;">Sample Date</th> <th style="width:10%;">Sample Time</th> <th style="width:10%;">Sample Type (C=comp, G=grab)</th> <th style="width:10%;">Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)</th> <th style="width:10%;">Field Filtered Sample (Yes or No)</th> <th style="width:10%;">Perform MS/MSD (Yes or No)</th> <th style="width:10%;">8082A PCBs</th> <th style="width:10%;">Total Number of containers</th> <th style="width:10%;">Special Instructions/Note</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>1 ED-RISD-058-1</td> <td>6/24/21</td> <td>1430</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>2 ED-RISD-034-1</td> <td></td> <td>1435</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>3 ED-RISD-050</td> <td></td> <td>1500</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>4 ED-RISD-051</td> <td></td> <td>1505</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>5 ED-RISD-052</td> <td></td> <td>1510</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>6 ED-RISD-053</td> <td></td> <td>1517</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>7 ED-RISD-054</td> <td></td> <td>1529</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>8 ED-RISD-055</td> <td>6/25/21</td> <td>1325</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>9 ED-RISD-056</td> <td></td> <td>1320</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>10 ED-RISD-057</td> <td></td> <td>1315</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> <tr> <td>11 ED-RISD-058</td> <td></td> <td>1318</td> <td>C</td> <td>S</td> <td></td> <td></td> <td>X</td> <td>1</td> <td></td> </tr> </tbody> </table>										Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A PCBs	Total Number of containers	Special Instructions/Note											1 ED-RISD-058-1	6/24/21	1430	C	S			X	1		2 ED-RISD-034-1		1435	C	S			X	1		3 ED-RISD-050		1500	C	S			X	1		4 ED-RISD-051		1505	C	S			X	1		5 ED-RISD-052		1510	C	S			X	1		6 ED-RISD-053		1517	C	S			X	1		7 ED-RISD-054		1529	C	S			X	1		8 ED-RISD-055	6/25/21	1325	C	S			X	1		9 ED-RISD-056		1320	C	S			X	1		10 ED-RISD-057		1315	C	S			X	1		11 ED-RISD-058		1318	C	S			X	1	
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A PCBs	Total Number of containers	Special Instructions/Note																																																																																																																																		
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3 ED-RISD-050		1500	C	S			X	1																																																																																																																																			
4 ED-RISD-051		1505	C	S			X	1																																																																																																																																			
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Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																																																																																						
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)					Special Instructions/QC Requirements																																																																																																																																						
Empty Kit Relinquished by			Date		Time		Method of Shipment:																																																																																																																																				
Relinquished by: 			Date/Time: 6/25/21 1530		Company: CEC		Received by:  Date/Time: 6/25/21 1530 Company: ER																																																																																																																																				
Relinquished by: 			Date/Time: 6/25/21 1638		Company: EA		Received by:  Date/Time: 6/25/21 1638 Company: ETA-CH																																																																																																																																				
Relinquished by:			Date/Time:		Company:		Received by: Date/Time Company:																																																																																																																																				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 1.1→0.1																																																																																																																																						

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Client Information		Sampler: <i>ISORGENE</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s)	COC No: 500-92691-41294 10								
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin	Page 10 of 12								
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: 500-201571								
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested	<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> <tr><td>Total Number of Containers</td><td></td></tr> </table>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8092A - PCBs		Total Number of Containers		Preservation Codes A HCL M Hexane B NaOH N - None C Zn Acetate O - AsNaO2 D Nitric Acid P - Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J - DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify)
Field Filtered Sample (Yes or No)													
Perform MS/MSD (Yes or No)													
8092A - PCBs													
Total Number of Containers													
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>											
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No											
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required											
Email: jrckfordobrien@cecinc.com		WO #:											
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033											
Site:		SSOW#:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	Total Number of Containers	Special Instructions/Note			
				Preservation Code.		X	X						
12	ED-RISD-054	6/25/21	1307	C	S	X	X		1				
13	ED-RISD-060	}	1340	C	S	X	X		1				
14	ED-RISD-061 (mb/wsd)		1345	C	S	X	X		3				
15	ED-RISD-062		1350	C	S	X	X		1				
16	ED-RISD-063		1355	C	S	X	X		1				
17	ED-RISD-064		1400	C	S	X	X		1				
18	ED-RISD-065		1405	C	S	X	X		1				
19	ED-RISD-066		1410	C	S	X	X		1				
20	ED-RISD-067		1415	C	S	X	X		1				
21	ED-RISD-068		1420	C	S	X	X		1				
22	ED-RISD-069		1425	C	S	X	X		1				
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I II III IV, Other (specify)						Special Instructions/QC Requirements							
Empty Kit Relinquished by			Date			Time			Method of Shipment:				
Relinquished by: <i>[Signature]</i>			Date/Time: 6/25/21 1530			Company: LEC			Received by: <i>[Signature]</i>				
Relinquished by: <i>[Signature]</i>			Date/Time: 6/25/21 1638			Company: EVA			Received by: Stephomie Hernandez				
Relinquished by:			Date/Time:			Company:			Received by:				
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No				Cooler Temperature(s) °C and Other Remarks.							

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
America

Client Information		Sampler: <i>ISOALGENSE</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 5
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page: Page 5 of 12
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: 500-201511
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:			
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>	Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Phone: 865-340-4914(Tel)		PO #:			
Email: jrnickfordobrien@cecinc.com		Purchase Order not required			
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033	Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z - other (specify)		
Site:		SSOW#:			
Sample Identification		Sample Date			
		Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note
				Preservation Code	
<i>23 ED-RISD-DUP5</i>		<i>6/25/21 1425</i>	<i>C</i>	<i>S</i>	<i>X</i>
<i>24 ED-RISD-ED8</i>		<i>6/25/21 1455</i>	<i>G</i>	<i>W</i>	<i>X</i>
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested I, II, III, IV Other (specify)		Special Instructions/QC Requirements			
Empty Kit Relinquished by		Date	Time	Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/25/21 1530</i>	Company: <i>CEC</i>	Received by: <i>[Signature]</i>	Date/Time: <i>6/25/21 1530</i> Company: <i>ETA</i>
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/25/21 1638</i>	Company: <i>ETA</i>	Received by: <i>Stephanie Hernandez</i>	Date/Time: <i>6/25/21 1638</i> Company: <i>ETA-CH</i>
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time: Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:			

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201511-1

Login Number: 201511

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-201511-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/29/2021 11:49:39 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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QC Sample Results	13
Chronicle	14
Certification Summary	15
Chain of Custody	16
Receipt Checklists	19



Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Job ID: 500-201511-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201511-2

Comments

No additional comments.

Receipt

The samples were received on 6/25/2021 4:38 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.1° C.

GC Semi VOA

Method 8082A: Surrogate recovery for the following method blank (MB) was outside the upper control limit: (MB 500-606322/1-A). This MB did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Client Sample ID: ED-R1SD-068

Lab Sample ID: 500-201511-21

No Detections.

Client Sample ID: ED-R1SD-069

Lab Sample ID: 500-201511-22

No Detections.

Client Sample ID: ED-R1SD-DUP5

Lab Sample ID: 500-201511-23

No Detections.

- 1
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- 13
- 14
- 15

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201511-21	ED-R1SD-068	Solid	06/25/21 14:20	06/25/21 16:38	
500-201511-22	ED-R1SD-069	Solid	06/25/21 14:25	06/25/21 16:38	
500-201511-23	ED-R1SD-DUP5	Solid	06/25/21 14:25	06/25/21 16:38	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Client Sample ID: ED-R1SD-068

Lab Sample ID: 500-201511-21

Date Collected: 06/25/21 14:20

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 83.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 07:48	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 07:48	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 07:48	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 07:48	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 07:48	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 07:48	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 07:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		49 - 129	06/25/21 19:45	06/26/21 07:48	20
DCB Decachlorobiphenyl	112		37 - 121	06/25/21 19:45	06/26/21 07:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Client Sample ID: ED-R1SD-069

Lab Sample ID: 500-201511-22

Date Collected: 06/25/21 14:25

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 83.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 08:04	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 08:04	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 08:04	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 08:04	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 08:04	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 08:04	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/25/21 19:45	06/26/21 08:04	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	06/25/21 19:45	06/26/21 08:04	20
DCB Decachlorobiphenyl	98		37 - 121	06/25/21 19:45	06/26/21 08:04	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Client Sample ID: ED-R1SD-DUP5

Lab Sample ID: 500-201511-23

Date Collected: 06/25/21 14:25

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 81.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/25/21 19:45	06/26/21 08:19	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/25/21 19:45	06/26/21 08:19	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/25/21 19:45	06/26/21 08:19	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/25/21 19:45	06/26/21 08:19	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/25/21 19:45	06/26/21 08:19	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/25/21 19:45	06/26/21 08:19	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/25/21 19:45	06/26/21 08:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/25/21 19:45	06/26/21 08:19	20
DCB Decachlorobiphenyl	85		37 - 121	06/25/21 19:45	06/26/21 08:19	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

GC Semi VOA

Prep Batch: 606322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201511-21	ED-R1SD-068	Total/NA	Solid	3541	
500-201511-22	ED-R1SD-069	Total/NA	Solid	3541	
500-201511-23	ED-R1SD-DUP5	Total/NA	Solid	3541	
MB 500-606322/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-606322/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201511-23 MS	ED-R1SD-DUP5	Total/NA	Solid	3541	
500-201511-23 MSD	ED-R1SD-DUP5	Total/NA	Solid	3541	

Analysis Batch: 606336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201511-21	ED-R1SD-068	Total/NA	Solid	8082A	606322
500-201511-22	ED-R1SD-069	Total/NA	Solid	8082A	606322
500-201511-23	ED-R1SD-DUP5	Total/NA	Solid	8082A	606322
MB 500-606322/1-A	Method Blank	Total/NA	Solid	8082A	606322
LCS 500-606322/2-A	Lab Control Sample	Total/NA	Solid	8082A	606322
500-201511-23 MS	ED-R1SD-DUP5	Total/NA	Solid	8082A	606322
500-201511-23 MSD	ED-R1SD-DUP5	Total/NA	Solid	8082A	606322

General Chemistry

Analysis Batch: 606408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201511-21	ED-R1SD-068	Total/NA	Solid	Moisture	
500-201511-22	ED-R1SD-069	Total/NA	Solid	Moisture	
500-201511-23	ED-R1SD-DUP5	Total/NA	Solid	Moisture	
500-201511-21 DU	ED-R1SD-068	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201511-21	ED-R1SD-068	88	112
500-201511-22	ED-R1SD-069	80	98
500-201511-23	ED-R1SD-DUP5	76	85
500-201511-23 MS	ED-R1SD-DUP5	88	100
500-201511-23 MSD	ED-R1SD-DUP5	98	114
LCS 500-606322/2-A	Lab Control Sample	91	112
MB 500-606322/1-A	Method Blank	113	126 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606322/1-A
Matrix: Solid
Analysis Batch: 606336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606322

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		06/25/21 19:45	06/26/21 07:18		20	
PCB-1221	<0.33		0.33		mg/Kg		06/25/21 19:45	06/26/21 07:18		20	
PCB-1232	<0.33		0.33		mg/Kg		06/25/21 19:45	06/26/21 07:18		20	
PCB-1242	<0.33		0.33		mg/Kg		06/25/21 19:45	06/26/21 07:18		20	
PCB-1248	<0.33		0.33		mg/Kg		06/25/21 19:45	06/26/21 07:18		20	
PCB-1254	<0.33		0.33		mg/Kg		06/25/21 19:45	06/26/21 07:18		20	
PCB-1260	<0.33		0.33		mg/Kg		06/25/21 19:45	06/26/21 07:18		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	113		49 - 129	06/25/21 19:45	06/26/21 07:18		20	
DCB Decachlorobiphenyl	126	S1+	37 - 121	06/25/21 19:45	06/26/21 07:18		20	

Lab Sample ID: LCS 500-606322/2-A
Matrix: Solid
Analysis Batch: 606336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606322

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.64		mg/Kg		98	57 - 120	
PCB-1260	1.67	1.74		mg/Kg		104	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	91		49 - 129
DCB Decachlorobiphenyl	112		37 - 121

Lab Sample ID: 500-201511-23 MS
Matrix: Solid
Analysis Batch: 606336

Client Sample ID: ED-R1SD-DUP5
Prep Type: Total/NA
Prep Batch: 606322

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.41		2.03	2.02		mg/Kg	☼	100	57 - 120	
PCB-1260	<0.41		2.03	2.03		mg/Kg	☼	100	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	88		49 - 129
DCB Decachlorobiphenyl	100		37 - 121

Lab Sample ID: 500-201511-23 MSD
Matrix: Solid
Analysis Batch: 606336

Client Sample ID: ED-R1SD-DUP5
Prep Type: Total/NA
Prep Batch: 606322

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.41		2.04	2.16		mg/Kg	☼	106	57 - 120	6	30	
PCB-1260	<0.41		2.04	2.22		mg/Kg	☼	109	61 - 125	9	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	98		49 - 129
DCB Decachlorobiphenyl	114		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Client Sample ID: ED-R1SD-068

Lab Sample ID: 500-201511-21

Date Collected: 06/25/21 14:20

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606408	06/28/21 06:43	LWN	TAL CHI

Client Sample ID: ED-R1SD-068

Lab Sample ID: 500-201511-21

Date Collected: 06/25/21 14:20

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606322	06/25/21 19:45	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 07:48	SS	TAL CHI

Client Sample ID: ED-R1SD-069

Lab Sample ID: 500-201511-22

Date Collected: 06/25/21 14:25

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606408	06/28/21 06:43	LWN	TAL CHI

Client Sample ID: ED-R1SD-069

Lab Sample ID: 500-201511-22

Date Collected: 06/25/21 14:25

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606322	06/25/21 19:45	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 08:04	SS	TAL CHI

Client Sample ID: ED-R1SD-DUP5

Lab Sample ID: 500-201511-23

Date Collected: 06/25/21 14:25

Matrix: Solid

Date Received: 06/25/21 16:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606408	06/28/21 06:43	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP5

Lab Sample ID: 500-201511-23

Date Collected: 06/25/21 14:25

Matrix: Solid

Date Received: 06/25/21 16:38

Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606322	06/25/21 19:45	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606336	06/26/21 08:19	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Eurofins TestAmerica, Chicago

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
America

Client Information		Sampler: <i>ETORGENSEN</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 6						
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page Page 6 of 12						
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested							
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Job #: <i>500-201511</i>							
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>		 500-201511 COC							
State, Zip: TN 37920		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required									
Email: jrickfordobrien@cecinc.com		WO #:									
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033									
Site:		SSOW#:		Preservation Codes							
				A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S - H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)							
				Other:							
				Special Instructions/Note							
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A PCBs	Total Number of containers		
				Preservation Code:		X	N				
1	<i>ED-RISD-058-1</i>	<i>6/24/21</i>	<i>1430</i>	<i>C</i>	<i>S</i>				<i>1</i>		
2	<i>ED-RISD-034-1</i>		<i>1435</i>	<i>C</i>	<i>S</i>				<i>1</i>		
3	<i>ED-RISD-050</i>		<i>1500</i>	<i>C</i>	<i>S</i>				<i>1</i>		
4	<i>ED-RISD-051</i>		<i>1505</i>	<i>C</i>	<i>S</i>				<i>1</i>		
5	<i>ED-RISD-052</i>		<i>1510</i>	<i>C</i>	<i>S</i>				<i>1</i>		
6	<i>ED-RISD-053</i>		<i>1517</i>	<i>C</i>	<i>S</i>				<i>1</i>		
7	<i>ED-RISD-054</i>		<i>1529</i>	<i>C</i>	<i>S</i>				<i>1</i>		
8	<i>ED-RISD-055</i>	<i>6/25/21</i>	<i>1325</i>	<i>C</i>	<i>S</i>				<i>1</i>		
9	<i>ED-RISD-056</i>		<i>1320</i>	<i>C</i>	<i>S</i>				<i>1</i>		
10	<i>ED-RISD-057</i>		<i>1315</i>	<i>C</i>	<i>S</i>				<i>1</i>		
11	<i>ED-RISD-058</i>		<i>1318</i>	<i>C</i>	<i>S</i>				<i>1</i>		
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date		Time		Method of Shipment:				
Relinquished by: <i>[Signature]</i>			Date/Time: <i>6/25/21 1530</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>6/25/21 1530</i>		Company: <i>ET</i>
Relinquished by: <i>[Signature]</i>			Date/Time: <i>6/25/21 1638</i>		Company: <i>EA</i>		Received by: <i>Stephanie Hemminger</i>		Date/Time: <i>6/25/21 1638</i>		Company: <i>ETA-CH</i>
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>1.1 → 0.1</i>							

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: <i>ISORGENE</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s)	COC No: 500-92691-41294 10								
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin	Page 10 of 12								
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: 500-201571								
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested	<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> <tr><td>Total Number of Containers</td><td></td></tr> </table>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8092A - PCBs		Total Number of Containers		Preservation Codes A HCL M Hexane B NaOH N - None C Zn Acetate O - AsNaO2 D Nitric Acid P - Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J - DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:
Field Filtered Sample (Yes or No)													
Perform MS/MSD (Yes or No)													
8092A - PCBs													
Total Number of Containers													
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>											
State, Zip: TN 37920		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No											
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required											
Email: jrckfordobrien@cecinc.com		WO #:											
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033											
Site:		SSOW#:											
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	Total Number of Containers	Special Instructions/Note				
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)								
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Deliverable Requested I II III IV, Other (specify)					Special Instructions/QC Requirements								
Empty Kit Relinquished by		Date	Time		Method of Shipment:								
Relinquished by: <i>[Signature]</i>		Date/Time: 6/25/21 1530	Company: LEC		Received by: <i>[Signature]</i>		Date/Time: 6/25/21 1530		Company: EA				
Relinquished by: <i>[Signature]</i>		Date/Time: 6/25/21 1638	Company: EVA		Received by: Stephomie Hernandez		Date/Time: 6/25/21 1638		Company: EPA-OH				
Relinquished by:		Date/Time:	Company:		Received by:		Date/Time:		Company:				
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks.								

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: <i>ISOALGENSE</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 5								
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page: Page 5 of 12								
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: <i>500-201511</i>								
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:	<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> <tr><td>Total Number of containers</td><td></td></tr> </table>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of containers		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z - other (specify)
Field Filtered Sample (Yes or No)													
Perform MS/MSD (Yes or No)													
8082A - PCBs													
Total Number of containers													
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>											
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No											
Phone: 865-340-4914(Tel)		PO #											
Email: jrnickfordobrien@cecinc.com		Purchase Order not required											
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033											
Site:		SSOW#:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note			
				Preservation Code.									
<i>23</i>	<i>ED-RISD-DUP5</i>	<i>6/25/21</i>	<i>1425</i>	<i>C</i>	<i>S</i>								
<i>24</i>	<i>ED-RISD-ED8</i>	<i>6/25/21</i>	<i>1455</i>	<i>G</i>	<i>W</i>								
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)								
Deliverable Requested <i>I, II, III, IV</i> Other (specify)					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Empty Kit Relinquished by		Date	Time	Method of Shipment:									
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/25/21 1530</i>	Company: <i>CEC</i>	Received by: <i>[Signature]</i>		Date/Time: <i>6/25/21 1530</i>	Company: <i>ETA</i>						
Relinquished by: <i>[Signature]</i>		Date/Time: <i>6/25/21 1638</i>	Company: <i>ETA</i>	Received by: <i>Stephanie Hernandez</i>		Date/Time: <i>6/25/21 1630</i>	Company: <i>ETA-CH</i>						
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:						
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks:								

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201511-2

Login Number: 201511

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

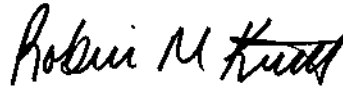
Laboratory Job ID: 500-201511-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/29/2021 3:15:34 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Job ID: 500-201511-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201511-3

Comments

No additional comments.

Receipt

The samples were received on 6/25/2021 4:38 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.1° C.

GC Semi VOA

Method 8082A: The continuing calibration verification (CCV) associated with batch 500-606633 recovered above the upper control limit for PCB-1016, PCB-1260 and DCB Decachlorobiphenyl. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCVIS 500-606633/2).

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following the method blank (MB) was outside control limits: (MB 500-606369/1-A). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Client Sample ID: ED-R1SD-EB8

Lab Sample ID: 500-201511-24

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201511-24	ED-R1SD-EB8	Water	06/25/21 14:55	06/25/21 16:38	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Client Sample ID: ED-R1SD-EB8

Lab Sample ID: 500-201511-24

Date Collected: 06/25/21 14:55

Matrix: Water

Date Received: 06/25/21 16:38

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 02:19	1
PCB-1221	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 02:19	1
PCB-1232	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 02:19	1
PCB-1242	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 02:19	1
PCB-1248	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 02:19	1
PCB-1254	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 02:19	1
PCB-1260	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 02:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		30 - 120	06/26/21 12:13	06/29/21 02:19	1
DCB Decachlorobiphenyl	74		30 - 140	06/26/21 12:13	06/29/21 02:19	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

GC Semi VOA

Prep Batch: 606369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201511-24	ED-R1SD-EB8	Total/NA	Water	3510C	
MB 500-606369/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-606369/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-606369/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 606633

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201511-24	ED-R1SD-EB8	Total/NA	Water	8082A	606369
MB 500-606369/1-A	Method Blank	Total/NA	Water	8082A	606369
LCS 500-606369/4-A	Lab Control Sample	Total/NA	Water	8082A	606369
LCSD 500-606369/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	606369

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-201511-24	ED-R1SD-EB8	67	74
LCS 500-606369/4-A	Lab Control Sample	37	95
LCSD 500-606369/5-A	Lab Control Sample Dup	49	100
MB 500-606369/1-A	Method Blank	24 S1-	55

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606369/1-A
Matrix: Water
Analysis Batch: 606633

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606369

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 00:58	1
PCB-1221	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 00:58	1
PCB-1232	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 00:58	1
PCB-1242	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 00:58	1
PCB-1248	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 00:58	1
PCB-1254	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 00:58	1
PCB-1260	<0.00040		0.00040		mg/L		06/26/21 12:13	06/29/21 00:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	24	S1-	30 - 120	06/26/21 12:13	06/29/21 00:58	1
DCB Decachlorobiphenyl	55		30 - 140	06/26/21 12:13	06/29/21 00:58	1

Lab Sample ID: LCS 500-606369/4-A
Matrix: Water
Analysis Batch: 606633

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606369

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00267		mg/L		67	56 - 120
PCB-1260	0.00400	0.00372		mg/L		93	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	37		30 - 120
DCB Decachlorobiphenyl	95		30 - 140

Lab Sample ID: LCSD 500-606369/5-A
Matrix: Water
Analysis Batch: 606633

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 606369

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00326		mg/L		82	56 - 120	20	20
PCB-1260	0.00400	0.00424		mg/L		106	53 - 137	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	49		30 - 120
DCB Decachlorobiphenyl	100		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Client Sample ID: ED-R1SD-EB8

Lab Sample ID: 500-201511-24

Date Collected: 06/25/21 14:55

Matrix: Water

Date Received: 06/25/21 16:38

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			606369	06/26/21 12:13	SB	TAL CHI
Total/NA	Analysis	8082A		1	606633	06/29/21 02:19	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201511-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



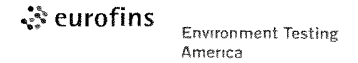
Environment Testing
 America

Client Information		Sampler: ETORGENSEN		Lab PM: Kintz Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 6	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page 6 of 12	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		 500-201511 COC		Job # 500-201511		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S - H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)	
City: Knoxville		TAT Requested (days): RUSH 24hr							
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required							
Email: jrickfordobrien@cecinc.com		WO #:							
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		Field Filtered Sample (Yes or No):		Perform MS/MSD (Yes or No):		Total Number of containers:	
Site:		SSOW#:		8082A PCBs:					
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code:	
1	ED-RISD-058-1	6/24/21	1430	C	S				X
2	ED-RISD-034-1	↓	1435	C	S				X
3	ED-RISD-050		1500	C	S				X
4	ED-RISD-051		1505	C	S				X
5	ED-RISD-052		1510	C	S				X
6	ED-RISD-053		1517	C	S				X
7	ED-RISD-054	↓	1529	C	S				X
8	ED-RISD-055	6/25/21	1325	C	S				X
9	ED-RISD-056	↓	1320	C	S				X
10	ED-RISD-057		1315	C	S				X
11	ED-RISD-058		1318	C	S				X
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by			Date		Time		Method of Shipment:		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/25/21 1530		Company: CEC		Received by: <i>[Signature]</i> Date/Time: 6/25/21 1530 Company: ER		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/25/21 1638		Company: EA		Received by: <i>[Signature]</i> Date/Time: 6/25/21 1638 Company: ETA-CH		
Relinquished by:			Date/Time:		Company:		Received by: Date/Time: Company:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks: 1.1→0.1				

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Client Information		Sampler: <i>ISORGENE</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s)	COC No: 500-92691-41294 10								
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin	Page 10 of 12								
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: 500-201571								
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested	<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> <tr><td>Total Number of Containers</td><td></td></tr> </table>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8092A - PCBs		Total Number of Containers		Preservation Codes A HCL M Hexane B NaOH N - None C Zn Acetate O - AsNaO2 D Nitric Acid P - Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J - DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:
Field Filtered Sample (Yes or No)													
Perform MS/MSD (Yes or No)													
8092A - PCBs													
Total Number of Containers													
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>											
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No											
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required											
Email: jrnickfordobrien@cecinc.com		WO #:											
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033											
Site:		SSOW#:											
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	Total Number of Containers	Special Instructions/Note			
				Preservation Code.									
12	ED-RISD-054	6/25/21	1307	L	S				1				
13	ED-RISD-060	}	1340	L	S				1				
14	ED-RISD-061 (mb/wsd)		1345	L	S		X		3				
15	ED-RISD-062		1350	L	S				1				
16	ED-RISD-063		1355	L	S				1				
17	ED-RISD-064		1400	L	S				1				
18	ED-RISD-065		1405	L	S				1				
19	ED-RISD-066		1410	L	S				1				
20	ED-RISD-067		1415	L	S				1				
21	ED-RISD-068		1420	L	S				1				
22	ED-RISD-069		1425	L	S				1				
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I II III IV, Other (specify)						Special Instructions/QC Requirements							
Empty Kit Relinquished by			Date		Time		Method of Shipment:						
Relinquished by: <i>[Signature]</i>			Date/Time: 6/25/21 1530		Company: LEC		Received by: <i>[Signature]</i>		Date/Time: 6/25/21 1530		Company: ER		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/25/21 1638		Company: EVA		Received by: Stephomie Hernandez		Date/Time: 6/25/21 1638		Company: EPA-OH		
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:		Company:		
Custody Seals Intact.		Custody Seal No		Cooler Temperature(s) °C and Other Remarks.									
<input type="checkbox"/> Yes <input type="checkbox"/> No													

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201511-3

Login Number: 201511

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201555-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/29/2021 3:27:49 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Job ID: 500-201555-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201555-1

Comments

No additional comments.

Receipt

The samples were received on 6/28/2021 3:46 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.5° C.

GC Semi VOA

Method 8082A: The following samples were reported from the primary column due to Tetrachloro-m-xylene, DCB Decachlorobiphenyl, PCB-1260 and PCB-1016 recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The following samples were reported from the primary column due to DCB Decachlorobiphenyl and PCB-1260 recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1016 and PCB-1221: ED-R1SD-079 (500-201555-10).

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-076 (500-201555-7).

Method 8082A: The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-079 (500-201555-10). The reagent lot number used was: Z07G073.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-070

Lab Sample ID: 500-201555-1

No Detections.

Client Sample ID: ED-R1SD-071

Lab Sample ID: 500-201555-2

No Detections.

Client Sample ID: ED-R1SD-072

Lab Sample ID: 500-201555-3

No Detections.

Client Sample ID: ED-R1SD-073

Lab Sample ID: 500-201555-4

No Detections.

Client Sample ID: ED-R1SD-074

Lab Sample ID: 500-201555-5

No Detections.

Client Sample ID: ED-R1SD-075

Lab Sample ID: 500-201555-6

No Detections.

Client Sample ID: ED-R1SD-076

Lab Sample ID: 500-201555-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.86		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-077

Lab Sample ID: 500-201555-8

No Detections.

Client Sample ID: ED-R1SD-078

Lab Sample ID: 500-201555-9

No Detections.

Client Sample ID: ED-R1SD-079

Lab Sample ID: 500-201555-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	0.96		0.40		mg/Kg	20	✳	8082A	Total/NA
PCB-1221	0.87		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-080

Lab Sample ID: 500-201555-11

No Detections.

Client Sample ID: ED-R1SD-081

Lab Sample ID: 500-201555-12

No Detections.

Client Sample ID: ED-R1SD-082

Lab Sample ID: 500-201555-13

No Detections.

Client Sample ID: ED-R1SD-083

Lab Sample ID: 500-201555-14

No Detections.

Client Sample ID: ED-R1SD-084

Lab Sample ID: 500-201555-15

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-085

Lab Sample ID: 500-201555-16

No Detections.

Client Sample ID: ED-R1SD-086

Lab Sample ID: 500-201555-17

No Detections.

Client Sample ID: ED-R1SD-087

Lab Sample ID: 500-201555-18

No Detections.

Client Sample ID: ED-R1SD-088

Lab Sample ID: 500-201555-19

No Detections.

Client Sample ID: ED-R1SD-089

Lab Sample ID: 500-201555-20

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201555-1	ED-R1SD-070	Solid	06/26/21 08:00	06/28/21 15:46	
500-201555-2	ED-R1SD-071	Solid	06/26/21 08:05	06/28/21 15:46	
500-201555-3	ED-R1SD-072	Solid	06/26/21 08:10	06/28/21 15:46	
500-201555-4	ED-R1SD-073	Solid	06/26/21 08:25	06/28/21 15:46	
500-201555-5	ED-R1SD-074	Solid	06/26/21 08:30	06/28/21 15:46	
500-201555-6	ED-R1SD-075	Solid	06/26/21 08:35	06/28/21 15:46	
500-201555-7	ED-R1SD-076	Solid	06/26/21 08:50	06/28/21 15:46	
500-201555-8	ED-R1SD-077	Solid	06/26/21 08:55	06/28/21 15:46	
500-201555-9	ED-R1SD-078	Solid	06/26/21 10:10	06/28/21 15:46	
500-201555-10	ED-R1SD-079	Solid	06/26/21 10:15	06/28/21 15:46	
500-201555-11	ED-R1SD-080	Solid	06/26/21 10:20	06/28/21 15:46	
500-201555-12	ED-R1SD-081	Solid	06/26/21 10:25	06/28/21 15:46	
500-201555-13	ED-R1SD-082	Solid	06/26/21 10:35	06/28/21 15:46	
500-201555-14	ED-R1SD-083	Solid	06/26/21 12:45	06/28/21 15:46	
500-201555-15	ED-R1SD-084	Solid	06/26/21 12:50	06/28/21 15:46	
500-201555-16	ED-R1SD-085	Solid	06/26/21 12:55	06/28/21 15:46	
500-201555-17	ED-R1SD-086	Solid	06/26/21 13:00	06/28/21 15:46	
500-201555-18	ED-R1SD-087	Solid	06/26/21 13:05	06/28/21 15:46	
500-201555-19	ED-R1SD-088	Solid	06/26/21 13:20	06/28/21 15:46	
500-201555-20	ED-R1SD-089	Solid	06/26/21 13:25	06/28/21 15:46	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-070

Lab Sample ID: 500-201555-1

Date Collected: 06/26/21 08:00

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 83.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 01:58	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 01:58	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 01:58	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 01:58	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 01:58	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 01:58	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 01:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		49 - 129	06/28/21 17:14	06/29/21 01:58	20
DCB Decachlorobiphenyl	104		37 - 121	06/28/21 17:14	06/29/21 01:58	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-071

Lab Sample ID: 500-201555-2

Date Collected: 06/26/21 08:05

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 02:14	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 02:14	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 02:14	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 02:14	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 02:14	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 02:14	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 02:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/28/21 17:14	06/29/21 02:14	20
DCB Decachlorobiphenyl	86		37 - 121	06/28/21 17:14	06/29/21 02:14	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-072

Lab Sample ID: 500-201555-3

Date Collected: 06/26/21 08:10

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 83.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 02:29	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 02:29	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 02:29	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 02:29	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 02:29	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 02:29	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 02:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		49 - 129	06/28/21 17:14	06/29/21 02:29	20
DCB Decachlorobiphenyl	92		37 - 121	06/28/21 17:14	06/29/21 02:29	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-073

Lab Sample ID: 500-201555-4

Date Collected: 06/26/21 08:25

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 78.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	06/28/21 17:14	06/29/21 02:44	20
PCB-1221	<0.42		0.42		mg/Kg	☼	06/28/21 17:14	06/29/21 02:44	20
PCB-1232	<0.42		0.42		mg/Kg	☼	06/28/21 17:14	06/29/21 02:44	20
PCB-1242	<0.42		0.42		mg/Kg	☼	06/28/21 17:14	06/29/21 02:44	20
PCB-1248	<0.42		0.42		mg/Kg	☼	06/28/21 17:14	06/29/21 02:44	20
PCB-1254	<0.42		0.42		mg/Kg	☼	06/28/21 17:14	06/29/21 02:44	20
PCB-1260	<0.42		0.42		mg/Kg	☼	06/28/21 17:14	06/29/21 02:44	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	06/28/21 17:14	06/29/21 02:44	20
DCB Decachlorobiphenyl	90		37 - 121	06/28/21 17:14	06/29/21 02:44	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-074

Lab Sample ID: 500-201555-5

Date Collected: 06/26/21 08:30

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 77.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	06/28/21 17:14	06/29/21 03:00	20
PCB-1221	<0.43		0.43		mg/Kg	☼	06/28/21 17:14	06/29/21 03:00	20
PCB-1232	<0.43		0.43		mg/Kg	☼	06/28/21 17:14	06/29/21 03:00	20
PCB-1242	<0.43		0.43		mg/Kg	☼	06/28/21 17:14	06/29/21 03:00	20
PCB-1248	<0.43		0.43		mg/Kg	☼	06/28/21 17:14	06/29/21 03:00	20
PCB-1254	<0.43		0.43		mg/Kg	☼	06/28/21 17:14	06/29/21 03:00	20
PCB-1260	<0.43		0.43		mg/Kg	☼	06/28/21 17:14	06/29/21 03:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	06/28/21 17:14	06/29/21 03:00	20
DCB Decachlorobiphenyl	71		37 - 121	06/28/21 17:14	06/29/21 03:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-075

Lab Sample ID: 500-201555-6

Date Collected: 06/26/21 08:35

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 03:15	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 03:15	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 03:15	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 03:15	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 03:15	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 03:15	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 03:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		49 - 129	06/28/21 17:14	06/29/21 03:15	20
DCB Decachlorobiphenyl	100		37 - 121	06/28/21 17:14	06/29/21 03:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-076

Lab Sample ID: 500-201555-7

Date Collected: 06/26/21 08:50

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 81.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/28/21 17:14	06/29/21 03:31	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/28/21 17:14	06/29/21 03:31	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/28/21 17:14	06/29/21 03:31	20
PCB-1242	0.86		0.41		mg/Kg	☼	06/28/21 17:14	06/29/21 03:31	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/28/21 17:14	06/29/21 03:31	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/28/21 17:14	06/29/21 03:31	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/28/21 17:14	06/29/21 03:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	06/28/21 17:14	06/29/21 03:31	20
DCB Decachlorobiphenyl	99		37 - 121	06/28/21 17:14	06/29/21 03:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-077

Lab Sample ID: 500-201555-8

Date Collected: 06/26/21 08:55

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:17	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:17	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:17	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:17	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:17	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:17	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	06/28/21 17:14	06/29/21 04:17	20
DCB Decachlorobiphenyl	88		37 - 121	06/28/21 17:14	06/29/21 04:17	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-078

Lab Sample ID: 500-201555-9

Date Collected: 06/26/21 10:10

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 87.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:32	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:32	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:32	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:32	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:32	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:32	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 04:32	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	06/28/21 17:14	06/29/21 04:32	20
DCB Decachlorobiphenyl	102		37 - 121	06/28/21 17:14	06/29/21 04:32	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-079

Lab Sample ID: 500-201555-10

Date Collected: 06/26/21 10:15

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.96		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 10:53	20
PCB-1221	0.87		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 10:53	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 10:53	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 10:53	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 10:53	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 10:53	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/28/21 17:14	06/29/21 10:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	81		49 - 129	06/28/21 17:14	06/29/21 10:53	20
<i>DCB Decachlorobiphenyl</i>	112		37 - 121	06/28/21 17:14	06/29/21 10:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-080

Lab Sample ID: 500-201555-11

Date Collected: 06/26/21 10:20

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 05:03	20
PCB-1221	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 05:03	20
PCB-1232	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 05:03	20
PCB-1242	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 05:03	20
PCB-1248	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 05:03	20
PCB-1254	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 05:03	20
PCB-1260	<0.39		0.39		mg/Kg	☼	06/28/21 17:14	06/29/21 05:03	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/28/21 17:14	06/29/21 05:03	20
DCB Decachlorobiphenyl	98		37 - 121	06/28/21 17:14	06/29/21 05:03	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-081

Lab Sample ID: 500-201555-12

Date Collected: 06/26/21 10:25

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:18	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:18	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:18	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:18	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:18	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:18	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/28/21 17:14	06/29/21 05:18	20
DCB Decachlorobiphenyl	94		37 - 121	06/28/21 17:14	06/29/21 05:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-082

Lab Sample ID: 500-201555-13

Date Collected: 06/26/21 10:35

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 89.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 05:33	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 05:33	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 05:33	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 05:33	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 05:33	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 05:33	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 05:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/28/21 17:14	06/29/21 05:33	20
DCB Decachlorobiphenyl	93		37 - 121	06/28/21 17:14	06/29/21 05:33	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-083

Lab Sample ID: 500-201555-14

Date Collected: 06/26/21 12:45

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:49	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:49	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:49	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:49	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:49	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:49	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 05:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/28/21 17:14	06/29/21 05:49	20
DCB Decachlorobiphenyl	106		37 - 121	06/28/21 17:14	06/29/21 05:49	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-084

Lab Sample ID: 500-201555-15

Date Collected: 06/26/21 12:50

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:04	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:04	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:04	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:04	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:04	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:04	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:04	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/28/21 17:14	06/29/21 06:04	20
DCB Decachlorobiphenyl	91		37 - 121	06/28/21 17:14	06/29/21 06:04	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-085

Lab Sample ID: 500-201555-16

Date Collected: 06/26/21 12:55

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 06:19	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 06:19	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 06:19	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 06:19	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 06:19	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 06:19	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 06:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/28/21 17:14	06/29/21 06:19	20
DCB Decachlorobiphenyl	89		37 - 121	06/28/21 17:14	06/29/21 06:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-086

Lab Sample ID: 500-201555-17

Date Collected: 06/26/21 13:00

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 87.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:35	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:35	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:35	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:35	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:35	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:35	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:35	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	06/28/21 17:14	06/29/21 06:35	20
DCB Decachlorobiphenyl	90		37 - 121	06/28/21 17:14	06/29/21 06:35	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-087

Lab Sample ID: 500-201555-18

Date Collected: 06/26/21 13:05

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:50	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:50	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:50	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:50	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:50	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:50	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 06:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	06/28/21 17:14	06/29/21 06:50	20
DCB Decachlorobiphenyl	93		37 - 121	06/28/21 17:14	06/29/21 06:50	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-088

Lab Sample ID: 500-201555-19

Date Collected: 06/26/21 13:20

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 07:05	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 07:05	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 07:05	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 07:05	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 07:05	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 07:05	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/28/21 17:14	06/29/21 07:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	06/28/21 17:14	06/29/21 07:05	20
DCB Decachlorobiphenyl	96		37 - 121	06/28/21 17:14	06/29/21 07:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-089

Lab Sample ID: 500-201555-20

Date Collected: 06/26/21 13:25

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 07:21	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 07:21	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 07:21	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 07:21	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 07:21	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 07:21	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/28/21 17:14	06/29/21 07:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	06/28/21 17:14	06/29/21 07:21	20
DCB Decachlorobiphenyl	89		37 - 121	06/28/21 17:14	06/29/21 07:21	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

GC Semi VOA

Prep Batch: 606590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-1	ED-R1SD-070	Total/NA	Solid	3541	
500-201555-2	ED-R1SD-071	Total/NA	Solid	3541	
500-201555-3	ED-R1SD-072	Total/NA	Solid	3541	
500-201555-4	ED-R1SD-073	Total/NA	Solid	3541	
500-201555-5	ED-R1SD-074	Total/NA	Solid	3541	
500-201555-6	ED-R1SD-075	Total/NA	Solid	3541	
500-201555-7	ED-R1SD-076	Total/NA	Solid	3541	
500-201555-8	ED-R1SD-077	Total/NA	Solid	3541	
500-201555-9	ED-R1SD-078	Total/NA	Solid	3541	
500-201555-10	ED-R1SD-079	Total/NA	Solid	3541	
500-201555-11	ED-R1SD-080	Total/NA	Solid	3541	
500-201555-12	ED-R1SD-081	Total/NA	Solid	3541	
500-201555-13	ED-R1SD-082	Total/NA	Solid	3541	
500-201555-14	ED-R1SD-083	Total/NA	Solid	3541	
500-201555-15	ED-R1SD-084	Total/NA	Solid	3541	
500-201555-16	ED-R1SD-085	Total/NA	Solid	3541	
500-201555-17	ED-R1SD-086	Total/NA	Solid	3541	
500-201555-18	ED-R1SD-087	Total/NA	Solid	3541	
500-201555-19	ED-R1SD-088	Total/NA	Solid	3541	
500-201555-20	ED-R1SD-089	Total/NA	Solid	3541	
MB 500-606590/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-606590/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201555-7 MS	ED-R1SD-076	Total/NA	Solid	3541	
500-201555-7 MSD	ED-R1SD-076	Total/NA	Solid	3541	

Analysis Batch: 606607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-1	ED-R1SD-070	Total/NA	Solid	8082A	606590
500-201555-2	ED-R1SD-071	Total/NA	Solid	8082A	606590
500-201555-3	ED-R1SD-072	Total/NA	Solid	8082A	606590
500-201555-4	ED-R1SD-073	Total/NA	Solid	8082A	606590
500-201555-5	ED-R1SD-074	Total/NA	Solid	8082A	606590
500-201555-6	ED-R1SD-075	Total/NA	Solid	8082A	606590
500-201555-7	ED-R1SD-076	Total/NA	Solid	8082A	606590
500-201555-8	ED-R1SD-077	Total/NA	Solid	8082A	606590
500-201555-9	ED-R1SD-078	Total/NA	Solid	8082A	606590
500-201555-11	ED-R1SD-080	Total/NA	Solid	8082A	606590
500-201555-12	ED-R1SD-081	Total/NA	Solid	8082A	606590
500-201555-13	ED-R1SD-082	Total/NA	Solid	8082A	606590
500-201555-14	ED-R1SD-083	Total/NA	Solid	8082A	606590
500-201555-15	ED-R1SD-084	Total/NA	Solid	8082A	606590
500-201555-16	ED-R1SD-085	Total/NA	Solid	8082A	606590
500-201555-17	ED-R1SD-086	Total/NA	Solid	8082A	606590
500-201555-18	ED-R1SD-087	Total/NA	Solid	8082A	606590
500-201555-19	ED-R1SD-088	Total/NA	Solid	8082A	606590
500-201555-20	ED-R1SD-089	Total/NA	Solid	8082A	606590
MB 500-606590/1-A	Method Blank	Total/NA	Solid	8082A	606590
LCS 500-606590/2-A	Lab Control Sample	Total/NA	Solid	8082A	606590
500-201555-7 MS	ED-R1SD-076	Total/NA	Solid	8082A	606590
500-201555-7 MSD	ED-R1SD-076	Total/NA	Solid	8082A	606590

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

GC Semi VOA

Analysis Batch: 606728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-10	ED-R1SD-079	Total/NA	Solid	8082A	606590

General Chemistry

Analysis Batch: 606639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-1	ED-R1SD-070	Total/NA	Solid	Moisture	
500-201555-2	ED-R1SD-071	Total/NA	Solid	Moisture	
500-201555-3	ED-R1SD-072	Total/NA	Solid	Moisture	
500-201555-4	ED-R1SD-073	Total/NA	Solid	Moisture	
500-201555-5	ED-R1SD-074	Total/NA	Solid	Moisture	
500-201555-6	ED-R1SD-075	Total/NA	Solid	Moisture	
500-201555-7	ED-R1SD-076	Total/NA	Solid	Moisture	
500-201555-8	ED-R1SD-077	Total/NA	Solid	Moisture	
500-201555-9	ED-R1SD-078	Total/NA	Solid	Moisture	
500-201555-10	ED-R1SD-079	Total/NA	Solid	Moisture	
500-201555-11	ED-R1SD-080	Total/NA	Solid	Moisture	
500-201555-12	ED-R1SD-081	Total/NA	Solid	Moisture	
500-201555-13	ED-R1SD-082	Total/NA	Solid	Moisture	
500-201555-14	ED-R1SD-083	Total/NA	Solid	Moisture	
500-201555-15	ED-R1SD-084	Total/NA	Solid	Moisture	
500-201555-16	ED-R1SD-085	Total/NA	Solid	Moisture	
500-201555-17	ED-R1SD-086	Total/NA	Solid	Moisture	
500-201555-18	ED-R1SD-087	Total/NA	Solid	Moisture	
500-201555-19	ED-R1SD-088	Total/NA	Solid	Moisture	
500-201555-20	ED-R1SD-089	Total/NA	Solid	Moisture	
500-201555-8 DU	ED-R1SD-077	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201555-1	ED-R1SD-070	85	104
500-201555-2	ED-R1SD-071	76	86
500-201555-3	ED-R1SD-072	78	92
500-201555-4	ED-R1SD-073	75	90
500-201555-5	ED-R1SD-074	61	71
500-201555-6	ED-R1SD-075	86	100
500-201555-7	ED-R1SD-076	77	99
500-201555-7 MS	ED-R1SD-076	62	74
500-201555-7 MSD	ED-R1SD-076	69	83
500-201555-8	ED-R1SD-077	73	88
500-201555-9	ED-R1SD-078	74	102
500-201555-10	ED-R1SD-079	81	112
500-201555-11	ED-R1SD-080	71	98
500-201555-12	ED-R1SD-081	68	94
500-201555-13	ED-R1SD-082	68	93
500-201555-14	ED-R1SD-083	76	106
500-201555-15	ED-R1SD-084	71	91
500-201555-16	ED-R1SD-085	68	89
500-201555-17	ED-R1SD-086	65	90
500-201555-18	ED-R1SD-087	65	93
500-201555-19	ED-R1SD-088	72	96
500-201555-20	ED-R1SD-089	72	89
LCS 500-606590/2-A	Lab Control Sample	83	99
MB 500-606590/1-A	Method Blank	99	111

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606590/1-A
Matrix: Solid
Analysis Batch: 606607

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606590

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1221	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1232	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1242	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1248	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1254	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1260	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	99		49 - 129	06/28/21 17:14	06/29/21 01:28	20
DCB Decachlorobiphenyl	111		37 - 121	06/28/21 17:14	06/29/21 01:28	20

Lab Sample ID: LCS 500-606590/2-A
Matrix: Solid
Analysis Batch: 606607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606590

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.52		mg/Kg		91	57 - 120
PCB-1260	1.67	1.60		mg/Kg		96	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	83		49 - 129
DCB Decachlorobiphenyl	99		37 - 121

Lab Sample ID: 500-201555-7 MS
Matrix: Solid
Analysis Batch: 606607

Client Sample ID: ED-R1SD-076
Prep Type: Total/NA
Prep Batch: 606590

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.41		2.03	2.00		mg/Kg	☼	99	57 - 120
PCB-1260	<0.41		2.03	1.96		mg/Kg	☼	97	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	62		49 - 129
DCB Decachlorobiphenyl	74		37 - 121

Lab Sample ID: 500-201555-7 MSD
Matrix: Solid
Analysis Batch: 606607

Client Sample ID: ED-R1SD-076
Prep Type: Total/NA
Prep Batch: 606590

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.41		2.03	1.66		mg/Kg	☼	82	57 - 120	19	30
PCB-1260	<0.41		2.03	1.61		mg/Kg	☼	79	61 - 125	20	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	69		49 - 129
DCB Decachlorobiphenyl	83		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-070

Date Collected: 06/26/21 08:00

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-070

Date Collected: 06/26/21 08:00

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-1

Matrix: Solid

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 01:58	SS	TAL CHI

Client Sample ID: ED-R1SD-071

Date Collected: 06/26/21 08:05

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-071

Date Collected: 06/26/21 08:05

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-2

Matrix: Solid

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 02:14	SS	TAL CHI

Client Sample ID: ED-R1SD-072

Date Collected: 06/26/21 08:10

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-072

Date Collected: 06/26/21 08:10

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-3

Matrix: Solid

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 02:29	SS	TAL CHI

Client Sample ID: ED-R1SD-073

Date Collected: 06/26/21 08:25

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-073

Date Collected: 06/26/21 08:25

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-4

Matrix: Solid

Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 02:44	SS	TAL CHI

Client Sample ID: ED-R1SD-074

Date Collected: 06/26/21 08:30

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-074

Date Collected: 06/26/21 08:30

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-5

Matrix: Solid

Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 03:00	SS	TAL CHI

Client Sample ID: ED-R1SD-075

Date Collected: 06/26/21 08:35

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-075

Date Collected: 06/26/21 08:35

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-6

Matrix: Solid

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 03:15	SS	TAL CHI

Client Sample ID: ED-R1SD-076

Date Collected: 06/26/21 08:50

Date Received: 06/28/21 15:46

Lab Sample ID: 500-201555-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-076

Lab Sample ID: 500-201555-7

Date Collected: 06/26/21 08:50

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 81.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 03:31	SS	TAL CHI

Client Sample ID: ED-R1SD-077

Lab Sample ID: 500-201555-8

Date Collected: 06/26/21 08:55

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-077

Lab Sample ID: 500-201555-8

Date Collected: 06/26/21 08:55

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 04:17	SS	TAL CHI

Client Sample ID: ED-R1SD-078

Lab Sample ID: 500-201555-9

Date Collected: 06/26/21 10:10

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-078

Lab Sample ID: 500-201555-9

Date Collected: 06/26/21 10:10

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 04:32	SS	TAL CHI

Client Sample ID: ED-R1SD-079

Lab Sample ID: 500-201555-10

Date Collected: 06/26/21 10:15

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-079

Lab Sample ID: 500-201555-10

Date Collected: 06/26/21 10:15

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606728	06/29/21 10:53	JB	TAL CHI

Client Sample ID: ED-R1SD-080

Lab Sample ID: 500-201555-11

Date Collected: 06/26/21 10:20

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-080

Lab Sample ID: 500-201555-11

Date Collected: 06/26/21 10:20

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 05:03	SS	TAL CHI

Client Sample ID: ED-R1SD-081

Lab Sample ID: 500-201555-12

Date Collected: 06/26/21 10:25

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-081

Lab Sample ID: 500-201555-12

Date Collected: 06/26/21 10:25

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 05:18	SS	TAL CHI

Client Sample ID: ED-R1SD-082

Lab Sample ID: 500-201555-13

Date Collected: 06/26/21 10:35

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-082

Lab Sample ID: 500-201555-13

Date Collected: 06/26/21 10:35

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 89.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 05:33	SS	TAL CHI

Client Sample ID: ED-R1SD-083

Lab Sample ID: 500-201555-14

Date Collected: 06/26/21 12:45

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-083

Lab Sample ID: 500-201555-14

Date Collected: 06/26/21 12:45

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 05:49	SS	TAL CHI

Client Sample ID: ED-R1SD-084

Lab Sample ID: 500-201555-15

Date Collected: 06/26/21 12:50

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-084

Lab Sample ID: 500-201555-15

Date Collected: 06/26/21 12:50

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 06:04	SS	TAL CHI

Client Sample ID: ED-R1SD-085

Lab Sample ID: 500-201555-16

Date Collected: 06/26/21 12:55

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-085

Lab Sample ID: 500-201555-16

Date Collected: 06/26/21 12:55

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 06:19	SS	TAL CHI

Client Sample ID: ED-R1SD-086

Lab Sample ID: 500-201555-17

Date Collected: 06/26/21 13:00

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-086

Lab Sample ID: 500-201555-17

Date Collected: 06/26/21 13:00

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 06:35	SS	TAL CHI

Client Sample ID: ED-R1SD-087

Lab Sample ID: 500-201555-18

Date Collected: 06/26/21 13:05

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-087

Lab Sample ID: 500-201555-18

Date Collected: 06/26/21 13:05

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 06:50	SS	TAL CHI

Client Sample ID: ED-R1SD-088

Lab Sample ID: 500-201555-19

Date Collected: 06/26/21 13:20

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Client Sample ID: ED-R1SD-088

Lab Sample ID: 500-201555-19

Date Collected: 06/26/21 13:20

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 07:05	SS	TAL CHI

Client Sample ID: ED-R1SD-089

Lab Sample ID: 500-201555-20

Date Collected: 06/26/21 13:25

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606639	06/29/21 06:22	LWN	TAL CHI

Client Sample ID: ED-R1SD-089

Lab Sample ID: 500-201555-20

Date Collected: 06/26/21 13:25

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 17:14	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606607	06/29/21 07:21	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

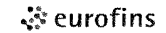
Client Information		Sampler: I JORGENSEN	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 3						
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page: 1 of 2 Page 1 of 2						
Company: Civil & Environmental Consultants Inc Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State, Zip: TN 37920 Phone: 865-340-4914(Tel) 500-201555 COC Email: jrnickfordobrien@cecinc.com			PWSID	Analysis Requested							
Project Name: Arconic PCB Rush Project - Lafayette IN			Job #: 500-201555		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:						
Due Date Requested TAT Requested (days): RUSH 24HR Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No PO #: Purchase Order not required WO #			Project #: 50019033 SSOW#								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	Total Number of containers	Special Instructions/Note	
					Preservation Code.	X	X				
ED-RISD-070		6/26/21	0800	C	S	X			1		
ED-RISD-071		↓	0805	C	S	X			1		
ED-RISD-072			0810	C	S	X			1		
ED-RISD-073			0825	C	S	X			1		
ED-RISD-074			0830	C	S	X			1		
ED-RISD-075			0835	C	S	X			1		
ED-RISD-076 (MS/MSD)			0850	C	S	S	X	X		3	
ED-RISD-077			9850	C	S	S	X			1	
ED-RISD-078			1010	C	S	S	X			1	
ED-RISD-079			1015	C	S	S	X			1	
ED-RISD-080			1020	C	S	S	X			1	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by		Date	Time	Method of Shipment:							
Relinquished by:		Date/Time: 6/28/21 1440	Company: CEC	Received by:		Date/Time: 6/28/21 1440	Company: ECR				
Relinquished by: P. New		Date/Time: 6/28/21 1546	Company: ECR	Received by:		Date/Time: 6/28/21 1546	Company: ECR				
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:				
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks		1.5 → 0.5 48qt.					

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: ISORGENSEN	Lab PM Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page 2 of 2 Page 4 of 2	
Company: Civil & Environmental Consultants Inc			PWSID:	Analysis Requested		
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Job #: 500-201535		
City: Knoxville		TAT Requested (days): RUSH 24HR		Preservation Codes		
State, Zip: TN 37920		Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No		A HCL M Hexane B NaOH N None C Zn Acetate O - AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)		
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required		Other:		
Email: jrickfordobrien@cecinc.com		WO #:				
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033				
Site:		SSOW#:				
				Field Filtered Sample (Yes or No)		
				Perform MS/MSD (Yes or No)		
				8082A - PCBs		
				Total Number of containers		
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note
				Preservation Code:		
12	ED-RISD-081	6/26/21	1025	G	S	
13	ED-RISD-082		1035	C	S	
14	ED-RISD-083		1245	C	S	
15	ED-RISD-084		1250	C	S	
16	ED-RISD-085		1255	C	S	
17	ED-RISD-086		1300	C	S	
18	ED-RISD-087		1305	C	S	
19	ED-RISD-088		1320	C	S	
20	ED-RISD-089		1325	C	S	
21	ED-RISD-DUP6		0835	C	S	
22	ED-RISD-EB9		1400	G	W	
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested I, II, III, IV Other (specify)			Special Instructions/QC Requirements			
Empty Kit Relinquished by		Date	Time		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 6/28/21 1440	Company: CEC		Received by: <i>[Signature]</i> Date/Time: 6/28/21 1440 Company: ECA	
Relinquished by: <i>[Signature]</i>		Date/Time: 6/28/21 1546	Company: ECA		Received by: <i>[Signature]</i> Date/Time: 6/28/21 1546 Company: ECA	
Relinquished by:		Date/Time:	Company:		Received by: Date/Time: Company:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks		

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201555-1

Login Number: 201555

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201555-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/30/2021 11:02:25 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Job ID: 500-201555-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201555-2

Comments

No additional comments.

Receipt

The samples were received on 6/28/2021 3:46 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.5° C.

GC Semi VOA

Method 8082A: The following samples were reported from the primary column due to Tetrachloro-m-xylene, DCB Decachlorobiphenyl, PCB-1260 and PCB-1016 recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The following samples were reported from the primary column due to DCB Decachlorobiphenyl and PCB-1260 recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1016: ED-R1SD-DUP6 (500-201555-21).

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: (500-201555-A-7-A).

Method 8082A: The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-DUP6 (500-201555-21). The reagent lot number used was: Z07G073.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Client Sample ID: ED-R1SD-DUP6

Lab Sample ID: 500-201555-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	0.43		0.41		mg/Kg	20	✱	8082A	Total/NA

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201555-21	ED-R1SD-DUP6	Solid	06/26/21 08:35	06/28/21 15:46	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Client Sample ID: ED-R1SD-DUP6

Lab Sample ID: 500-201555-21

Date Collected: 06/26/21 08:35

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 80.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.43		0.41		mg/Kg	☼	06/28/21 18:43	06/29/21 11:08	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/28/21 18:43	06/29/21 11:08	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/28/21 18:43	06/29/21 11:08	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/28/21 18:43	06/29/21 11:08	20
PCB-1248	<0.41		0.41		mg/Kg	☼	06/28/21 18:43	06/29/21 11:08	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/28/21 18:43	06/29/21 11:08	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/28/21 18:43	06/29/21 11:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	06/28/21 18:43	06/29/21 11:08	20
DCB Decachlorobiphenyl	106		37 - 121	06/28/21 18:43	06/29/21 11:08	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

GC Semi VOA

Prep Batch: 606590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-21	ED-R1SD-DUP6	Total/NA	Solid	3541	
MB 500-606590/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-606590/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 606607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-606590/1-A	Method Blank	Total/NA	Solid	8082A	606590
LCS 500-606590/2-A	Lab Control Sample	Total/NA	Solid	8082A	606590

Analysis Batch: 606728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-21	ED-R1SD-DUP6	Total/NA	Solid	8082A	606590

General Chemistry

Analysis Batch: 606641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-21	ED-R1SD-DUP6	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201555-21	ED-R1SD-DUP6	80	106
LCS 500-606590/2-A	Lab Control Sample	83	99
MB 500-606590/1-A	Method Blank	99	111

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606590/1-A
Matrix: Solid
Analysis Batch: 606607

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606590

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1221	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1232	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1242	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1248	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1254	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20
PCB-1260	<0.33		0.33		mg/Kg		06/28/21 17:14	06/29/21 01:28	20

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	99		49 - 129	06/28/21 17:14	06/29/21 01:28	20
<i>DCB Decachlorobiphenyl</i>	111		37 - 121	06/28/21 17:14	06/29/21 01:28	20

Lab Sample ID: LCS 500-606590/2-A
Matrix: Solid
Analysis Batch: 606607

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606590

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	1.67	1.52		mg/Kg		91	57 - 120
PCB-1260	1.67	1.60		mg/Kg		96	61 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>Tetrachloro-m-xylene</i>	83		49 - 129
<i>DCB Decachlorobiphenyl</i>	99		37 - 121

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Client Sample ID: ED-R1SD-DUP6

Lab Sample ID: 500-201555-21

Date Collected: 06/26/21 08:35

Matrix: Solid

Date Received: 06/28/21 15:46

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	606641	06/29/21 06:57	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP6

Lab Sample ID: 500-201555-21

Date Collected: 06/26/21 08:35

Matrix: Solid

Date Received: 06/28/21 15:46

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			606590	06/28/21 18:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	606728	06/29/21 11:08	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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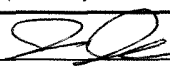

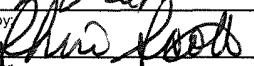
15

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I JORGENSEN	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 3																					
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin Kintz@Eurofinset.com	State of Origin:	Page: 1 of 2 Page 1 of 2																					
Company: Civil & Environmental Consultants Inc			PWSID	Analysis Requested																						
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State, Zip: TN 37920		Due Date Requested	<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>8092A - PCBs</td> <td>Total Number of containers</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>			Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs	Total Number of containers																	Job #: 500-201555
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8092A - PCBs				Total Number of containers																				
		TAT Requested (days): RUSH 24HR	Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F - MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)																							
Phone: 865-340-4914(Tel) 500-201555 COC		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	Other:																							
Email: jrnickfordobrien@cecinc.com		PO #: Purchase Order not required																								
Project Name: Arconic PCB Rush Project - Lafayette IN		WO #:																								
Site:		Project #: 50019033																								
		SSOW#:																								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)																					
				Preservation Code:																						
					N																					
ED-RISD-070		6/26/21	0800	C	S																					
ED-RISD-071			0805	C	S																					
ED-RISD-072			0810	C	S																					
ED-RISD-073			0825	C	S																					
ED-RISD-074			0830	C	S																					
ED-RISD-075			0835	C	S																					
ED-RISD-076 (MS/MSD)			0850	C	S																					
ED-RISD-077			0855	C	S																					
ED-RISD-078			1010	C	S																					
ED-RISD-079			1015	C	S																					
ED-RISD-080			1020	C	S																					
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																								
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																								
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)		Special Instructions/QC Requirements																								
Empty Kit Relinquished by		Date	Time	Method of Shipment:																						
Relinquished by: 		Date/Time: 6/28/21 1440	Company: CEC	Received by: 	Date/Time: 6/28/21 1440																					
Relinquished by: P. New		Date/Time: 6/28/21 1546	Company: ETA	Received by: 	Date/Time: 6/28/21 1546																					
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:																					
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 1.5 → 0.5 48qt.																						

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201555-2

Login Number: 201555

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201555-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
6/30/2021 12:02:28 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Job ID: 500-201555-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-201555-3**

Comments

No additional comments.

Receipt

The samples were received on 6/28/2021 3:46 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.5° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Client Sample ID: ED-RS1D-EB9

Lab Sample ID: 500-201555-22

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201555-22	ED-RS1D-EB9	Water	06/26/21 14:00	06/28/21 15:46	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Client Sample ID: ED-RS1D-EB9

Lab Sample ID: 500-201555-22

Date Collected: 06/26/21 14:00

Matrix: Water

Date Received: 06/28/21 15:46

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00037		0.00037		mg/L		06/29/21 07:58	06/29/21 23:35	1
PCB-1221	<0.00037		0.00037		mg/L		06/29/21 07:58	06/29/21 23:35	1
PCB-1232	<0.00037		0.00037		mg/L		06/29/21 07:58	06/29/21 23:35	1
PCB-1242	<0.00037		0.00037		mg/L		06/29/21 07:58	06/29/21 23:35	1
PCB-1248	<0.00037		0.00037		mg/L		06/29/21 07:58	06/29/21 23:35	1
PCB-1254	<0.00037		0.00037		mg/L		06/29/21 07:58	06/29/21 23:35	1
PCB-1260	<0.00037		0.00037		mg/L		06/29/21 07:58	06/29/21 23:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	45		30 - 120	06/29/21 07:58	06/29/21 23:35	1
DCB Decachlorobiphenyl	59		30 - 140	06/29/21 07:58	06/29/21 23:35	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

GC Semi VOA

Prep Batch: 606699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-22	ED-RS1D-EB9	Total/NA	Water	3510C	
MB 500-606699/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-606699/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-606699/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 606840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201555-22	ED-RS1D-EB9	Total/NA	Water	8082A	606699
MB 500-606699/1-A	Method Blank	Total/NA	Water	8082A	606699
LCS 500-606699/2-A	Lab Control Sample	Total/NA	Water	8082A	606699
LCSD 500-606699/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	606699

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201555-22	ED-RS1D-EB9	45	59
LCS 500-606699/2-A	Lab Control Sample	52	108
LCSD 500-606699/3-A	Lab Control Sample Dup	52	88
MB 500-606699/1-A	Method Blank	68	100

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-606699/1-A
Matrix: Water
Analysis Batch: 606840

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 606699

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		06/29/21 07:58	06/29/21 21:09	1
PCB-1221	<0.00040		0.00040		mg/L		06/29/21 07:58	06/29/21 21:09	1
PCB-1232	<0.00040		0.00040		mg/L		06/29/21 07:58	06/29/21 21:09	1
PCB-1242	<0.00040		0.00040		mg/L		06/29/21 07:58	06/29/21 21:09	1
PCB-1248	<0.00040		0.00040		mg/L		06/29/21 07:58	06/29/21 21:09	1
PCB-1254	<0.00040		0.00040		mg/L		06/29/21 07:58	06/29/21 21:09	1
PCB-1260	<0.00040		0.00040		mg/L		06/29/21 07:58	06/29/21 21:09	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	68		30 - 120	06/29/21 07:58	06/29/21 21:09	1
DCB Decachlorobiphenyl	100		30 - 140	06/29/21 07:58	06/29/21 21:09	1

Lab Sample ID: LCS 500-606699/2-A
Matrix: Water
Analysis Batch: 606840

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 606699

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00400	0.00293		mg/L		73	56 - 120
PCB-1260	0.00400	0.00420		mg/L		105	53 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	52		30 - 120
DCB Decachlorobiphenyl	108		30 - 140

Lab Sample ID: LCSD 500-606699/3-A
Matrix: Water
Analysis Batch: 606840

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 606699

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	
		Result	Qualifier					RPD	Limit
PCB-1016	0.00400	0.00297		mg/L		74	56 - 120	2	20
PCB-1260	0.00400	0.00347		mg/L		87	53 - 137	19	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	52		30 - 120
DCB Decachlorobiphenyl	88		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Client Sample ID: ED-RS1D-EB9

Lab Sample ID: 500-201555-22

Date Collected: 06/26/21 14:00

Matrix: Water

Date Received: 06/28/21 15:46

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			606699	06/29/21 07:58	SB	TAL CHI
Total/NA	Analysis	8082A		1	606840	06/29/21 23:35	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201555-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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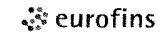
14

15

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
America

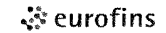
Client Information		Sampler: <i>I JORGENSEN</i>	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 3																																																																																																																														
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>	E-Mail: Robin Kintz@Eurofinset.com	State of Origin:	Page: <i>1 of 2</i> Page 1 of 2																																																																																																																														
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Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:	<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td rowspan="5">8092A - PCBs</td><td rowspan="5">Perform: MS/MSD (Yes or No)</td><td rowspan="5">Total Number of containers</td></tr> <tr><td>TAT Requested (days):</td></tr> <tr><td>Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No</td></tr> <tr><td>PO #: Purchase Order not required</td></tr> <tr><td>WO #:</td></tr> </table>		Field Filtered Sample (Yes or No)	8092A - PCBs	Perform: MS/MSD (Yes or No)	Total Number of containers	TAT Requested (days):	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	PO #: Purchase Order not required	WO #:	Preservation Codes																																																																																																																						
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State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	B NaOH	N None																																																																																																																															
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required	C Zn Acetate	O AsNaO2																																																																																																																															
Email: jrickfordobrien@cecinc.com		WO #:	D Nitric Acid	P Na2O4S																																																																																																																															
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1000055C W21

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
America

Client Information		Sampler: ISORGENSEN	Lab PM: Kintz Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4																												
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page 2 of 2 Page 4 of 2																												
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested																														
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City: Knoxville		TAT Requested (days): RUSH 24HR	<table border="1"> <tr> <th colspan="2">Preservation Codes</th> </tr> <tr> <td>A HCL</td> <td>M Hexane</td> </tr> <tr> <td>B NaOH</td> <td>N None</td> </tr> <tr> <td>C Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P Na2O4S</td> </tr> <tr> <td>E NaHSO4</td> <td>Q Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R Na2S2O3</td> </tr> <tr> <td>G Amchlor</td> <td>S H2SO4</td> </tr> <tr> <td>H Ascorbic Acid</td> <td>T TSP Dodecahydrate</td> </tr> <tr> <td>I Ice</td> <td>U Acetone</td> </tr> <tr> <td>J DI Water</td> <td>V MCAA</td> </tr> <tr> <td>K EDTA</td> <td>W pH 4-5</td> </tr> <tr> <td>L EDA</td> <td>Z other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>			Preservation Codes		A HCL	M Hexane	B NaOH	N None	C Zn Acetate	O - AsNaO2	D - Nitric Acid	P Na2O4S	E NaHSO4	Q Na2SO3	F - MeOH	R Na2S2O3	G Amchlor	S H2SO4	H Ascorbic Acid	T TSP Dodecahydrate	I Ice	U Acetone	J DI Water	V MCAA	K EDTA	W pH 4-5	L EDA	Z other (specify)	Other:	
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14	ED-RISD-083		1245	C	S				1																								
15	ED-RISD-084		1250	C	S				1																								
16	ED-RISD-085		1255	C	S				1																								
17	ED-RISD-086		1300	C	S				1																								
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<input type="checkbox"/> Yes <input type="checkbox"/> No																																	

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201555-3

Login Number: 201555

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201671-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 1

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/8/2021 4:05:46 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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QC Sample Results	33
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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Job ID: 500-201671-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201671-1

Comments

No additional comments.

Receipt

The samples were received on 6/30/2021 4:06 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

Revised Report

The report was revised to update all sample IDs per client request. The request is included in this report.

GC Semi VOA

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW045N (500-201671-2), ED-R1SD-SW047N (500-201671-4), ED-R1SD-SW049N (500-201671-6), ED-R1SD-SW051N (500-201671-8), ED-R1SD-SW053N (500-201671-10), ED-R1SD-SW055N (500-201671-12), ED-R1SD-SW055N (500-201671-12[MS]), ED-R1SD-SW055N (500-201671-12[MSD]), ED-R1SD-SW056S (500-201671-13), ED-R1SD-SW058S (500-201671-15) and ED-R1SD-SW059N (500-201671-16). The reagent lot number used was: Z07G073.

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-607066 and analytical batch 500-607100 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) was within acceptance limits.

Method 8082A: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: ED-R1SD-SW045N (500-201671-2). The sample has been quantified and reported as PCB-1248. Due to the poor match with the Aroclor standards, there is increased qualitative and quantitative uncertainty associated with this result.

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW044S (500-201671-1), ED-R1SD-SW045N (500-201671-2), ED-R1SD-SW047N (500-201671-4), ED-R1SD-SW049N (500-201671-6), ED-R1SD-SW050S (500-201671-7), ED-R1SD-SW051N (500-201671-8), ED-R1SD-SW053N (500-201671-10), ED-R1SD-SW055N (500-201671-12), ED-R1SD-SW057N (500-201671-14), ED-R1SD-SW058S (500-201671-15), ED-R1SD-SW059N (500-201671-16) and ED-R1SD-SW062S (500-201671-19).

Method 8082A: The %RPD between the primary and confirmation column exceeded 40% for PCB-1248 for the following samples: ED-R1SD-SW047N (500-201671-4) and ED-R1SD-SW053N (500-201671-10). The lower values have been reported and qualified in accordance with the laboratory's SOP.

Method 8082A: The following samples were reported from the primary column due to Laboratory control sample (LCS) recovering outside control limits for PCB-1016 and PCB-1260 on the secondary column. The LCS was within limits on the primary column, therefore, the data have been reported.

ED-R1SD-SW044S (500-201671-1), ED-R1SD-SW047N (500-201671-4), ED-R1SD-SW049N (500-201671-6), ED-R1SD-SW050S (500-201671-7), ED-R1SD-SW053N (500-201671-10), ED-R1SD-SW055N (500-201671-12), ED-R1SD-SW056S (500-201671-13), ED-R1SD-SW058S (500-201671-15), ED-R1SD-SW059N (500-201671-16), ED-R1SD-SW062S (500-201671-19) and (LCS 500-607066/2-A)

Method 8082A: The following samples were reported from the primary column due to Laboratory control sample (LCS) recovering outside control limits for PCB-1016 and PCB-1260 on the secondary column. The LCS was within limits on the primary column, therefore, the higher of the two results have been reported.

ED-R1SD-SW045N (500-201671-2), ED-R1SD-SW051N (500-201671-8), ED-R1SD-SW057N (500-201671-14) and (LCS 500-607066/2-A)

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-607100/2). The other surrogate was within limits; therefore, re-analysis was not performed.

Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Job ID: 500-201671-1 (Continued)

Laboratory: Eurofins TestAmerica, Chicago (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW044S

Lab Sample ID: 500-201671-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.4		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW045N

Lab Sample ID: 500-201671-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.3		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW046S

Lab Sample ID: 500-201671-3

No Detections.

Client Sample ID: ED-R1SD-SW047N

Lab Sample ID: 500-201671-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	6.9		2.1		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW048S

Lab Sample ID: 500-201671-5

No Detections.

Client Sample ID: ED-R1SD-SW049N

Lab Sample ID: 500-201671-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	12		4.4		mg/Kg	200	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW050S

Lab Sample ID: 500-201671-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.3		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW051N

Lab Sample ID: 500-201671-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	8.8		0.46		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW052S

Lab Sample ID: 500-201671-9

No Detections.

Client Sample ID: ED-R1SD-SW053N

Lab Sample ID: 500-201671-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.6		0.47		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW054S

Lab Sample ID: 500-201671-11

No Detections.

Client Sample ID: ED-R1SD-SW055N

Lab Sample ID: 500-201671-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	7.9		0.43		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW056S

Lab Sample ID: 500-201671-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW057N

Lab Sample ID: 500-201671-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.1		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW058S

Lab Sample ID: 500-201671-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.47		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW059N

Lab Sample ID: 500-201671-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.57		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW060S

Lab Sample ID: 500-201671-17

No Detections.

Client Sample ID: ED-R1SD-SW061N

Lab Sample ID: 500-201671-18

No Detections.

Client Sample ID: ED-R1SD-SW062S

Lab Sample ID: 500-201671-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	3.0		0.43		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW063N

Lab Sample ID: 500-201671-20

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201671-1	ED-R1SD-SW044S	Solid	06/30/21 08:00	06/30/21 16:06	
500-201671-2	ED-R1SD-SW045N	Solid	06/30/21 08:02	06/30/21 16:06	
500-201671-3	ED-R1SD-SW046S	Solid	06/30/21 08:10	06/30/21 16:06	
500-201671-4	ED-R1SD-SW047N	Solid	06/30/21 08:12	06/30/21 16:06	
500-201671-5	ED-R1SD-SW048S	Solid	06/30/21 08:25	06/30/21 16:06	
500-201671-6	ED-R1SD-SW049N	Solid	06/30/21 08:27	06/30/21 16:06	
500-201671-7	ED-R1SD-SW050S	Solid	06/30/21 08:35	06/30/21 16:06	
500-201671-8	ED-R1SD-SW051N	Solid	06/30/21 08:37	06/30/21 16:06	
500-201671-9	ED-R1SD-SW052S	Solid	06/30/21 08:50	06/30/21 16:06	
500-201671-10	ED-R1SD-SW053N	Solid	06/30/21 08:52	06/30/21 16:06	
500-201671-11	ED-R1SD-SW054S	Solid	06/30/21 09:10	06/30/21 16:06	
500-201671-12	ED-R1SD-SW055N	Solid	06/30/21 09:12	06/30/21 16:06	
500-201671-13	ED-R1SD-SW056S	Solid	06/30/21 09:25	06/30/21 16:06	
500-201671-14	ED-R1SD-SW057N	Solid	06/30/21 09:27	06/30/21 16:06	
500-201671-15	ED-R1SD-SW058S	Solid	06/30/21 09:35	06/30/21 16:06	
500-201671-16	ED-R1SD-SW059N	Solid	06/30/21 09:37	06/30/21 16:06	
500-201671-17	ED-R1SD-SW060S	Solid	06/30/21 09:50	06/30/21 16:06	
500-201671-18	ED-R1SD-SW061N	Solid	06/30/21 09:52	06/30/21 16:06	
500-201671-19	ED-R1SD-SW062S	Solid	06/30/21 10:05	06/30/21 16:06	
500-201671-20	ED-R1SD-SW063N	Solid	06/30/21 10:07	06/30/21 16:06	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW044S

Lab Sample ID: 500-201671-1

Date Collected: 06/30/21 08:00

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 02:48	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 02:48	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 02:48	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 02:48	20
PCB-1248	2.4		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 02:48	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 02:48	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 02:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	06/30/21 17:51	07/01/21 02:48	20
DCB Decachlorobiphenyl	67		37 - 121	06/30/21 17:51	07/01/21 02:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW045N

Lab Sample ID: 500-201671-2

Date Collected: 06/30/21 08:02

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 85.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 09:14	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 09:14	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 09:14	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 09:14	20
PCB-1248	1.3		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 09:14	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 09:14	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 09:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/30/21 17:51	07/01/21 09:14	20
DCB Decachlorobiphenyl	85		37 - 121	06/30/21 17:51	07/01/21 09:14	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW046S

Lab Sample ID: 500-201671-3

Date Collected: 06/30/21 08:10

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:19	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:19	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:19	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:19	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:19	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:19	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		49 - 129	06/30/21 17:51	07/01/21 03:19	20
DCB Decachlorobiphenyl	74		37 - 121	06/30/21 17:51	07/01/21 03:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW047N

Lab Sample ID: 500-201671-4

Date Collected: 06/30/21 08:12

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 77.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.1		2.1		mg/Kg	☼	06/30/21 17:51	07/01/21 09:29	100
PCB-1221	<2.1		2.1		mg/Kg	☼	06/30/21 17:51	07/01/21 09:29	100
PCB-1232	<2.1		2.1		mg/Kg	☼	06/30/21 17:51	07/01/21 09:29	100
PCB-1242	<2.1		2.1		mg/Kg	☼	06/30/21 17:51	07/01/21 09:29	100
PCB-1248	6.9		2.1		mg/Kg	☼	06/30/21 17:51	07/01/21 09:29	100
PCB-1254	<2.1		2.1		mg/Kg	☼	06/30/21 17:51	07/01/21 09:29	100
PCB-1260	<2.1		2.1		mg/Kg	☼	06/30/21 17:51	07/01/21 09:29	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	76		49 - 129	06/30/21 17:51	07/01/21 09:29	100
<i>DCB Decachlorobiphenyl</i>	86		37 - 121	06/30/21 17:51	07/01/21 09:29	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW048S

Lab Sample ID: 500-201671-5

Date Collected: 06/30/21 08:25

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 89.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:50	20
PCB-1221	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:50	20
PCB-1232	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:50	20
PCB-1242	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:50	20
PCB-1248	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:50	20
PCB-1254	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:50	20
PCB-1260	<0.37		0.37		mg/Kg	☼	06/30/21 17:51	07/01/21 03:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	06/30/21 17:51	07/01/21 03:50	20
DCB Decachlorobiphenyl	70		37 - 121	06/30/21 17:51	07/01/21 03:50	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW049N

Lab Sample ID: 500-201671-6

Date Collected: 06/30/21 08:27

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 75.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<4.4		4.4		mg/Kg	☼	06/30/21 17:51	07/01/21 09:45	200
PCB-1221	<4.4		4.4		mg/Kg	☼	06/30/21 17:51	07/01/21 09:45	200
PCB-1232	<4.4		4.4		mg/Kg	☼	06/30/21 17:51	07/01/21 09:45	200
PCB-1242	<4.4		4.4		mg/Kg	☼	06/30/21 17:51	07/01/21 09:45	200
PCB-1248	12		4.4		mg/Kg	☼	06/30/21 17:51	07/01/21 09:45	200
PCB-1254	<4.4		4.4		mg/Kg	☼	06/30/21 17:51	07/01/21 09:45	200
PCB-1260	<4.4		4.4		mg/Kg	☼	06/30/21 17:51	07/01/21 09:45	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	06/30/21 17:51	07/01/21 09:45	200
DCB Decachlorobiphenyl	85		37 - 121	06/30/21 17:51	07/01/21 09:45	200

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW050S

Lab Sample ID: 500-201671-7

Date Collected: 06/30/21 08:35

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 83.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:21	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:21	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:21	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:21	20
PCB-1248	1.3		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:21	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:21	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	06/30/21 17:51	07/01/21 04:21	20
DCB Decachlorobiphenyl	69		37 - 121	06/30/21 17:51	07/01/21 04:21	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW051N

Lab Sample ID: 500-201671-8

Date Collected: 06/30/21 08:37

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 71.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.46		0.46		mg/Kg	☼	06/30/21 17:51	07/01/21 10:00	20
PCB-1221	<0.46		0.46		mg/Kg	☼	06/30/21 17:51	07/01/21 10:00	20
PCB-1232	<0.46		0.46		mg/Kg	☼	06/30/21 17:51	07/01/21 10:00	20
PCB-1242	<0.46		0.46		mg/Kg	☼	06/30/21 17:51	07/01/21 10:00	20
PCB-1248	8.8		0.46		mg/Kg	☼	06/30/21 17:51	07/01/21 10:00	20
PCB-1254	<0.46		0.46		mg/Kg	☼	06/30/21 17:51	07/01/21 10:00	20
PCB-1260	<0.46		0.46		mg/Kg	☼	06/30/21 17:51	07/01/21 10:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	06/30/21 17:51	07/01/21 10:00	20
DCB Decachlorobiphenyl	73		37 - 121	06/30/21 17:51	07/01/21 10:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW052S

Lab Sample ID: 500-201671-9

Date Collected: 06/30/21 08:50

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:51	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:51	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:51	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:51	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:51	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:51	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 04:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	06/30/21 17:51	07/01/21 04:51	20
DCB Decachlorobiphenyl	79		37 - 121	06/30/21 17:51	07/01/21 04:51	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW053N

Lab Sample ID: 500-201671-10

Date Collected: 06/30/21 08:52

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 69.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.47		0.47		mg/Kg	☼	06/30/21 17:51	07/01/21 10:16	20
PCB-1221	<0.47		0.47		mg/Kg	☼	06/30/21 17:51	07/01/21 10:16	20
PCB-1232	<0.47		0.47		mg/Kg	☼	06/30/21 17:51	07/01/21 10:16	20
PCB-1242	<0.47		0.47		mg/Kg	☼	06/30/21 17:51	07/01/21 10:16	20
PCB-1248	2.6		0.47		mg/Kg	☼	06/30/21 17:51	07/01/21 10:16	20
PCB-1254	<0.47		0.47		mg/Kg	☼	06/30/21 17:51	07/01/21 10:16	20
PCB-1260	<0.47		0.47		mg/Kg	☼	06/30/21 17:51	07/01/21 10:16	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	06/30/21 17:51	07/01/21 10:16	20
DCB Decachlorobiphenyl	69		37 - 121	06/30/21 17:51	07/01/21 10:16	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW054S

Lab Sample ID: 500-201671-11

Date Collected: 06/30/21 09:10

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 05:22	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 05:22	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 05:22	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 05:22	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 05:22	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 05:22	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 05:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	06/30/21 17:51	07/01/21 05:22	20
DCB Decachlorobiphenyl	71		37 - 121	06/30/21 17:51	07/01/21 05:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW055N

Lab Sample ID: 500-201671-12

Date Collected: 06/30/21 09:12

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 74.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43	F1	0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 12:04	20
PCB-1221	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 12:04	20
PCB-1232	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 12:04	20
PCB-1242	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 12:04	20
PCB-1248	7.9		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 12:04	20
PCB-1254	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 12:04	20
PCB-1260	<0.43	F2	0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 12:04	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	06/30/21 17:51	07/01/21 12:04	20
DCB Decachlorobiphenyl	83		37 - 121	06/30/21 17:51	07/01/21 12:04	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW056S

Lab Sample ID: 500-201671-13

Date Collected: 06/30/21 09:25

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 77.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 11:18	20
PCB-1221	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 11:18	20
PCB-1232	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 11:18	20
PCB-1242	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 11:18	20
PCB-1248	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 11:18	20
PCB-1254	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 11:18	20
PCB-1260	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 11:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	06/30/21 17:51	07/01/21 11:18	20
DCB Decachlorobiphenyl	80		37 - 121	06/30/21 17:51	07/01/21 11:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW057N

Lab Sample ID: 500-201671-14

Date Collected: 06/30/21 09:27

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 84.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 06:40	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 06:40	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 06:40	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 06:40	20
PCB-1248	1.1		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 06:40	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 06:40	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 06:40	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		49 - 129	06/30/21 17:51	07/01/21 06:40	20
DCB Decachlorobiphenyl	95		37 - 121	06/30/21 17:51	07/01/21 06:40	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW058S

Lab Sample ID: 500-201671-15

Date Collected: 06/30/21 09:35

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 80.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	06/30/21 17:51	07/01/21 11:33	20
PCB-1221	<0.41		0.41		mg/Kg	☼	06/30/21 17:51	07/01/21 11:33	20
PCB-1232	<0.41		0.41		mg/Kg	☼	06/30/21 17:51	07/01/21 11:33	20
PCB-1242	<0.41		0.41		mg/Kg	☼	06/30/21 17:51	07/01/21 11:33	20
PCB-1248	0.47		0.41		mg/Kg	☼	06/30/21 17:51	07/01/21 11:33	20
PCB-1254	<0.41		0.41		mg/Kg	☼	06/30/21 17:51	07/01/21 11:33	20
PCB-1260	<0.41		0.41		mg/Kg	☼	06/30/21 17:51	07/01/21 11:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	06/30/21 17:51	07/01/21 11:33	20
DCB Decachlorobiphenyl	95		37 - 121	06/30/21 17:51	07/01/21 11:33	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW059N

Lab Sample ID: 500-201671-16

Date Collected: 06/30/21 09:37

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 82.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 11:48	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 11:48	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 11:48	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 11:48	20
PCB-1248	0.57		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 11:48	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 11:48	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 11:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	06/30/21 17:51	07/01/21 11:48	20
DCB Decachlorobiphenyl	83		37 - 121	06/30/21 17:51	07/01/21 11:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW060S

Lab Sample ID: 500-201671-17

Date Collected: 06/30/21 09:50

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 82.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 07:26	20
PCB-1221	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 07:26	20
PCB-1232	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 07:26	20
PCB-1242	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 07:26	20
PCB-1248	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 07:26	20
PCB-1254	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 07:26	20
PCB-1260	<0.40		0.40		mg/Kg	☼	06/30/21 17:51	07/01/21 07:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	06/30/21 17:51	07/01/21 07:26	20
DCB Decachlorobiphenyl	87		37 - 121	06/30/21 17:51	07/01/21 07:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW061N

Lab Sample ID: 500-201671-18

Date Collected: 06/30/21 09:52

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 84.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 07:41	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 07:41	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 07:41	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 07:41	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 07:41	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 07:41	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 07:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	06/30/21 17:51	07/01/21 07:41	20
DCB Decachlorobiphenyl	82		37 - 121	06/30/21 17:51	07/01/21 07:41	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW062S

Lab Sample ID: 500-201671-19

Date Collected: 06/30/21 10:05

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 76.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 07:57	20
PCB-1221	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 07:57	20
PCB-1232	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 07:57	20
PCB-1242	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 07:57	20
PCB-1248	3.0		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 07:57	20
PCB-1254	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 07:57	20
PCB-1260	<0.43		0.43		mg/Kg	☼	06/30/21 17:51	07/01/21 07:57	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	06/30/21 17:51	07/01/21 07:57	20
DCB Decachlorobiphenyl	74		37 - 121	06/30/21 17:51	07/01/21 07:57	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW063N

Lab Sample ID: 500-201671-20

Date Collected: 06/30/21 10:07

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 83.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 08:12	20
PCB-1221	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 08:12	20
PCB-1232	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 08:12	20
PCB-1242	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 08:12	20
PCB-1248	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 08:12	20
PCB-1254	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 08:12	20
PCB-1260	<0.38		0.38		mg/Kg	☼	06/30/21 17:51	07/01/21 08:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	06/30/21 17:51	07/01/21 08:12	20
DCB Decachlorobiphenyl	95		37 - 121	06/30/21 17:51	07/01/21 08:12	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

GC Semi VOA

Prep Batch: 607066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-1	ED-R1SD-SW044S	Total/NA	Solid	3541	
500-201671-2	ED-R1SD-SW045N	Total/NA	Solid	3541	
500-201671-3	ED-R1SD-SW046S	Total/NA	Solid	3541	
500-201671-4	ED-R1SD-SW047N	Total/NA	Solid	3541	
500-201671-5	ED-R1SD-SW048S	Total/NA	Solid	3541	
500-201671-6	ED-R1SD-SW049N	Total/NA	Solid	3541	
500-201671-7	ED-R1SD-SW050S	Total/NA	Solid	3541	
500-201671-8	ED-R1SD-SW051N	Total/NA	Solid	3541	
500-201671-9	ED-R1SD-SW052S	Total/NA	Solid	3541	
500-201671-10	ED-R1SD-SW053N	Total/NA	Solid	3541	
500-201671-11	ED-R1SD-SW054S	Total/NA	Solid	3541	
500-201671-12	ED-R1SD-SW055N	Total/NA	Solid	3541	
500-201671-13	ED-R1SD-SW056S	Total/NA	Solid	3541	
500-201671-14	ED-R1SD-SW057N	Total/NA	Solid	3541	
500-201671-15	ED-R1SD-SW058S	Total/NA	Solid	3541	
500-201671-16	ED-R1SD-SW059N	Total/NA	Solid	3541	
500-201671-17	ED-R1SD-SW060S	Total/NA	Solid	3541	
500-201671-18	ED-R1SD-SW061N	Total/NA	Solid	3541	
500-201671-19	ED-R1SD-SW062S	Total/NA	Solid	3541	
500-201671-20	ED-R1SD-SW063N	Total/NA	Solid	3541	
MB 500-607066/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-607066/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201671-12 MS	ED-R1SD-SW055N	Total/NA	Solid	3541	
500-201671-12 MSD	ED-R1SD-SW055N	Total/NA	Solid	3541	

Analysis Batch: 607100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-1	ED-R1SD-SW044S	Total/NA	Solid	8082A	607066
500-201671-2	ED-R1SD-SW045N	Total/NA	Solid	8082A	607066
500-201671-3	ED-R1SD-SW046S	Total/NA	Solid	8082A	607066
500-201671-4	ED-R1SD-SW047N	Total/NA	Solid	8082A	607066
500-201671-5	ED-R1SD-SW048S	Total/NA	Solid	8082A	607066
500-201671-6	ED-R1SD-SW049N	Total/NA	Solid	8082A	607066
500-201671-7	ED-R1SD-SW050S	Total/NA	Solid	8082A	607066
500-201671-8	ED-R1SD-SW051N	Total/NA	Solid	8082A	607066
500-201671-9	ED-R1SD-SW052S	Total/NA	Solid	8082A	607066
500-201671-10	ED-R1SD-SW053N	Total/NA	Solid	8082A	607066
500-201671-11	ED-R1SD-SW054S	Total/NA	Solid	8082A	607066
500-201671-12	ED-R1SD-SW055N	Total/NA	Solid	8082A	607066
500-201671-13	ED-R1SD-SW056S	Total/NA	Solid	8082A	607066
500-201671-14	ED-R1SD-SW057N	Total/NA	Solid	8082A	607066
500-201671-15	ED-R1SD-SW058S	Total/NA	Solid	8082A	607066
500-201671-16	ED-R1SD-SW059N	Total/NA	Solid	8082A	607066
500-201671-17	ED-R1SD-SW060S	Total/NA	Solid	8082A	607066
500-201671-18	ED-R1SD-SW061N	Total/NA	Solid	8082A	607066
500-201671-19	ED-R1SD-SW062S	Total/NA	Solid	8082A	607066
500-201671-20	ED-R1SD-SW063N	Total/NA	Solid	8082A	607066
MB 500-607066/1-A	Method Blank	Total/NA	Solid	8082A	607066
LCS 500-607066/2-A	Lab Control Sample	Total/NA	Solid	8082A	607066
500-201671-12 MS	ED-R1SD-SW055N	Total/NA	Solid	8082A	607066
500-201671-12 MSD	ED-R1SD-SW055N	Total/NA	Solid	8082A	607066

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

General Chemistry

Analysis Batch: 607065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-1	ED-R1SD-SW044S	Total/NA	Solid	Moisture	
500-201671-2	ED-R1SD-SW045N	Total/NA	Solid	Moisture	
500-201671-3	ED-R1SD-SW046S	Total/NA	Solid	Moisture	
500-201671-4	ED-R1SD-SW047N	Total/NA	Solid	Moisture	
500-201671-5	ED-R1SD-SW048S	Total/NA	Solid	Moisture	
500-201671-6	ED-R1SD-SW049N	Total/NA	Solid	Moisture	
500-201671-7	ED-R1SD-SW050S	Total/NA	Solid	Moisture	
500-201671-8	ED-R1SD-SW051N	Total/NA	Solid	Moisture	
500-201671-9	ED-R1SD-SW052S	Total/NA	Solid	Moisture	
500-201671-10	ED-R1SD-SW053N	Total/NA	Solid	Moisture	
500-201671-11	ED-R1SD-SW054S	Total/NA	Solid	Moisture	
500-201671-12	ED-R1SD-SW055N	Total/NA	Solid	Moisture	
500-201671-13	ED-R1SD-SW056S	Total/NA	Solid	Moisture	
500-201671-14	ED-R1SD-SW057N	Total/NA	Solid	Moisture	
500-201671-15	ED-R1SD-SW058S	Total/NA	Solid	Moisture	

Analysis Batch: 607073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-16	ED-R1SD-SW059N	Total/NA	Solid	Moisture	
500-201671-17	ED-R1SD-SW060S	Total/NA	Solid	Moisture	
500-201671-18	ED-R1SD-SW061N	Total/NA	Solid	Moisture	
500-201671-19	ED-R1SD-SW062S	Total/NA	Solid	Moisture	
500-201671-20	ED-R1SD-SW063N	Total/NA	Solid	Moisture	
500-201671-16 DU	ED-R1SD-SW059N	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201671-1	ED-R1SD-SW044S	84	67
500-201671-2	ED-R1SD-SW045N	76	85
500-201671-3	ED-R1SD-SW046S	85	74
500-201671-4	ED-R1SD-SW047N	76	86
500-201671-5	ED-R1SD-SW048S	71	70
500-201671-6	ED-R1SD-SW049N	73	85
500-201671-7	ED-R1SD-SW050S	70	69
500-201671-8	ED-R1SD-SW051N	72	73
500-201671-9	ED-R1SD-SW052S	72	79
500-201671-10	ED-R1SD-SW053N	77	69
500-201671-11	ED-R1SD-SW054S	65	71
500-201671-12	ED-R1SD-SW055N	76	83
500-201671-12 MS	ED-R1SD-SW055N	76	83
500-201671-12 MSD	ED-R1SD-SW055N	66	69
500-201671-13	ED-R1SD-SW056S	74	80
500-201671-14	ED-R1SD-SW057N	79	95
500-201671-15	ED-R1SD-SW058S	81	95
500-201671-16	ED-R1SD-SW059N	63	83
500-201671-17	ED-R1SD-SW060S	68	87
500-201671-18	ED-R1SD-SW061N	65	82
500-201671-19	ED-R1SD-SW062S	62	74
500-201671-20	ED-R1SD-SW063N	69	95
LCS 500-607066/2-A	Lab Control Sample	82	73
MB 500-607066/1-A	Method Blank	88	77

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-607066/1-A
Matrix: Solid
Analysis Batch: 607100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607066

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		06/30/21 17:51	07/01/21 02:17	20
PCB-1221	<0.33		0.33		mg/Kg		06/30/21 17:51	07/01/21 02:17	20
PCB-1232	<0.33		0.33		mg/Kg		06/30/21 17:51	07/01/21 02:17	20
PCB-1242	<0.33		0.33		mg/Kg		06/30/21 17:51	07/01/21 02:17	20
PCB-1248	<0.33		0.33		mg/Kg		06/30/21 17:51	07/01/21 02:17	20
PCB-1254	<0.33		0.33		mg/Kg		06/30/21 17:51	07/01/21 02:17	20
PCB-1260	<0.33		0.33		mg/Kg		06/30/21 17:51	07/01/21 02:17	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	88		49 - 129	06/30/21 17:51	07/01/21 02:17	20
DCB Decachlorobiphenyl	77		37 - 121	06/30/21 17:51	07/01/21 02:17	20

Lab Sample ID: LCS 500-607066/2-A
Matrix: Solid
Analysis Batch: 607100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607066

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.58		mg/Kg		95	57 - 120
PCB-1260	1.67	1.67		mg/Kg		100	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	82		49 - 129
DCB Decachlorobiphenyl	73		37 - 121

Lab Sample ID: 500-201671-12 MS
Matrix: Solid
Analysis Batch: 607100

Client Sample ID: ED-R1SD-SW055N
Prep Type: Total/NA
Prep Batch: 607066

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
PCB-1016	<0.43	F1	2.24	5.18	F1	mg/Kg	☼	232	57 - 120
PCB-1260	<0.43	F2	2.24	2.55		mg/Kg	☼	114	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	76		49 - 129
DCB Decachlorobiphenyl	83		37 - 121

Lab Sample ID: 500-201671-12 MSD
Matrix: Solid
Analysis Batch: 607100

Client Sample ID: ED-R1SD-SW055N
Prep Type: Total/NA
Prep Batch: 607066

Analyte	Sample		Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
	Result	Qualifier		Result	Qualifier					RPD	Limit
PCB-1016	<0.43	F1	2.19	3.85	F1	mg/Kg	☼	176	57 - 120	29	30
PCB-1260	<0.43	F2	2.19	1.81	F2	mg/Kg	☼	82	61 - 125	34	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	66		49 - 129
DCB Decachlorobiphenyl	69		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW044S

Lab Sample ID: 500-201671-1

Date Collected: 06/30/21 08:00

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW044S

Lab Sample ID: 500-201671-1

Date Collected: 06/30/21 08:00

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 02:48	SS	TAL CHI

Client Sample ID: ED-R1SD-SW045N

Lab Sample ID: 500-201671-2

Date Collected: 06/30/21 08:02

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW045N

Lab Sample ID: 500-201671-2

Date Collected: 06/30/21 08:02

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 09:14	SS	TAL CHI

Client Sample ID: ED-R1SD-SW046S

Lab Sample ID: 500-201671-3

Date Collected: 06/30/21 08:10

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW046S

Lab Sample ID: 500-201671-3

Date Collected: 06/30/21 08:10

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 03:19	SS	TAL CHI

Client Sample ID: ED-R1SD-SW047N

Lab Sample ID: 500-201671-4

Date Collected: 06/30/21 08:12

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW047N

Lab Sample ID: 500-201671-4

Date Collected: 06/30/21 08:12

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		100	607100	07/01/21 09:29	SS	TAL CHI

Client Sample ID: ED-R1SD-SW048S

Lab Sample ID: 500-201671-5

Date Collected: 06/30/21 08:25

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW048S

Lab Sample ID: 500-201671-5

Date Collected: 06/30/21 08:25

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 03:50	SS	TAL CHI

Client Sample ID: ED-R1SD-SW049N

Lab Sample ID: 500-201671-6

Date Collected: 06/30/21 08:27

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW049N

Lab Sample ID: 500-201671-6

Date Collected: 06/30/21 08:27

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 75.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		200	607100	07/01/21 09:45	SS	TAL CHI

Client Sample ID: ED-R1SD-SW050S

Lab Sample ID: 500-201671-7

Date Collected: 06/30/21 08:35

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW050S

Lab Sample ID: 500-201671-7

Date Collected: 06/30/21 08:35

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 04:21	SS	TAL CHI

Client Sample ID: ED-R1SD-SW051N

Lab Sample ID: 500-201671-8

Date Collected: 06/30/21 08:37

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW051N

Lab Sample ID: 500-201671-8

Date Collected: 06/30/21 08:37

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 71.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 10:00	SS	TAL CHI

Client Sample ID: ED-R1SD-SW052S

Lab Sample ID: 500-201671-9

Date Collected: 06/30/21 08:50

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW052S

Lab Sample ID: 500-201671-9

Date Collected: 06/30/21 08:50

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 04:51	SS	TAL CHI

Client Sample ID: ED-R1SD-SW053N

Lab Sample ID: 500-201671-10

Date Collected: 06/30/21 08:52

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW053N

Lab Sample ID: 500-201671-10

Date Collected: 06/30/21 08:52

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 69.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 10:16	SS	TAL CHI

Client Sample ID: ED-R1SD-SW054S

Lab Sample ID: 500-201671-11

Date Collected: 06/30/21 09:10

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW054S

Lab Sample ID: 500-201671-11

Date Collected: 06/30/21 09:10

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 05:22	SS	TAL CHI

Client Sample ID: ED-R1SD-SW055N

Lab Sample ID: 500-201671-12

Date Collected: 06/30/21 09:12

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW055N

Lab Sample ID: 500-201671-12

Date Collected: 06/30/21 09:12

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 74.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 12:04	SS	TAL CHI

Client Sample ID: ED-R1SD-SW056S

Lab Sample ID: 500-201671-13

Date Collected: 06/30/21 09:25

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW056S

Lab Sample ID: 500-201671-13

Date Collected: 06/30/21 09:25

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 77.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 11:18	SS	TAL CHI

Client Sample ID: ED-R1SD-SW057N

Lab Sample ID: 500-201671-14

Date Collected: 06/30/21 09:27

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW057N

Lab Sample ID: 500-201671-14

Date Collected: 06/30/21 09:27

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 06:40	SS	TAL CHI

Client Sample ID: ED-R1SD-SW058S

Lab Sample ID: 500-201671-15

Date Collected: 06/30/21 09:35

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607065	06/30/21 18:15	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW058S

Lab Sample ID: 500-201671-15

Date Collected: 06/30/21 09:35

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 11:33	SS	TAL CHI

Client Sample ID: ED-R1SD-SW059N

Lab Sample ID: 500-201671-16

Date Collected: 06/30/21 09:37

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW059N

Lab Sample ID: 500-201671-16

Date Collected: 06/30/21 09:37

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 11:48	SS	TAL CHI

Client Sample ID: ED-R1SD-SW060S

Lab Sample ID: 500-201671-17

Date Collected: 06/30/21 09:50

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW060S

Lab Sample ID: 500-201671-17

Date Collected: 06/30/21 09:50

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 82.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 07:26	SS	TAL CHI

Client Sample ID: ED-R1SD-SW061N

Lab Sample ID: 500-201671-18

Date Collected: 06/30/21 09:52

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW061N

Lab Sample ID: 500-201671-18

Date Collected: 06/30/21 09:52

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 07:41	SS	TAL CHI

Client Sample ID: ED-R1SD-SW062S

Lab Sample ID: 500-201671-19

Date Collected: 06/30/21 10:05

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Client Sample ID: ED-R1SD-SW062S

Lab Sample ID: 500-201671-19

Date Collected: 06/30/21 10:05

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 07:57	SS	TAL CHI

Client Sample ID: ED-R1SD-SW063N

Lab Sample ID: 500-201671-20

Date Collected: 06/30/21 10:07

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW063N

Lab Sample ID: 500-201671-20

Date Collected: 06/30/21 10:07

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607066	06/30/21 17:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607100	07/01/21 08:12	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Kintz, Robin

From: Welch, Garrett <gwelch@cecinc.com>
Sent: Tuesday, July 6, 2021 1:17 PM
To: Kintz, Robin
Cc: Rickford O'Brien, Jenny
Subject: Arconic - Elliott Ditch - Samples Submitted on 6/30
Attachments: J201671-1 UDS Level 2 Report Final Report.pdf; J201671-2 UDS Level 2 Report Final Report.pdf

EXTERNAL EMAIL*

Hi Robin,

For whatever reason, we miss labeled the samples sent to the lab on 6/30. Below is what the sample nomenclature should have been (note: the sample numbers are correct):

ED-R1SD-SW044S	6/30/2021
ED-R1SD-SW045N	6/30/2021
ED-R1SD-SW046S	6/30/2021
ED-R1SD-SW047N	6/30/2021
ED-R1SD-SW048S	6/30/2021
ED-R1SD-SW049N	6/30/2021
ED-R1SD-SW050S	6/30/2021
ED-R1SD-SW051N	6/30/2021
ED-R1SD-SW052S	6/30/2021
ED-R1SD-SW053N	6/30/2021
ED-R1SD-SW054S	6/30/2021
ED-R1SD-SW055N	6/30/2021
ED-R1SD-SW056S	6/30/2021
ED-R1SD-SW057N	6/30/2021
ED-R1SD-SW058S	6/30/2021
ED-R1SD-SW059N	6/30/2021
ED-R1SD-SW060S	6/30/2021
ED-R1SD-SW061N	6/30/2021
ED-R1SD-SW062S	6/30/2021
ED-R1SD-SW063N	6/30/2021
ED-R1SD-SW064S	6/30/2021
ED-R1SD-SW065N	6/30/2021
ED-R1SD-SW066S	6/30/2021
ED-R1SD-SW067N	6/30/2021
ED-R1SD-SW068S	6/30/2021

ED-R1SD-SW069N	6/30/2021
ED-R1SD-SW070S	6/30/2021
ED-R1SD-SW071N	6/30/2021

Can you have the lab reports revised? No rush on this.

Garrett

Garrett A. Welch, L.P.G.* | Project Manager

Civil & Environmental Consultants, Inc.

2704 Cherokee Farm Way, Suite 101, Knoxville, TN 37920

direct 865.340.4914 **office** 865.977.9997 **mobile** 865.440.1655

www.cecinc.com

*Licensed Professional Geologist in Tennessee & Indiana

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
America

Client Information
Client Contact: Jenny Rickford O'Brien
Company: Civil & Environmental Consultants Inc
Address: 2704 Cherokee Farm Way Suite 101
City: Knoxville
State, Zip: TN, 37920
Phone: 865-340-4914(Tel)
Email: jrnickfordobrien@cecinc.com

Sampler: *F JORGEUSEN*
Lab PM: Kintz Robin M
Carrier Tracking No(s):
COC No: 500-92691-41294 4

Phone: *224-250-5434*
E-Mail: Robin.Kintz@Eurofinset.com
State of Origin
Page ~~1 of 4~~ 1 of 3

Job #: *500-201671*
Analysis Requested
Due Date Requested
TAT Requested (days): *RUSH 24HR*
Compliance Project: Yes No
PO #: Purchase Order not required
WO#:
Project #: 50019033
Site:
SSOW#:

Preservation Codes

A HCL	M - Hexane
B NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P Na2O4S
E NaHSO4	Q - Na2SO3
F - MeOH	R Na2SO3
G - Amchlor	S H2SO4
H - Ascorbic Acid	T TSP Dodecahydrate
I - Ice	U Acetone
J DI Water	V - MCAA
K EDTA	W pH 4-5
L EDA	Z other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested										Total Number of Containers	Special Instructions/Note
							8082A - PCBs											
<i>ED-R1SD-SW44</i>	<i>6/30/21</i>	<i>0800</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW45</i>	<i>6/30/21</i>	<i>0802</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW46</i>	<i>6/30/21</i>	<i>0810</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW47</i>	<i>6/30/21</i>	<i>0812</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW48</i>	<i>6/30/21</i>	<i>0825</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW49</i>	<i>6/30/21</i>	<i>0827</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW50</i>	<i>6/30/21</i>	<i>0835</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW51</i>	<i>6/30/21</i>	<i>0837</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW52</i>	<i>6/30/21</i>	<i>0850</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW53</i>	<i>6/30/21</i>	<i>0852</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	
<i>ED-R1SD-SW54</i>	<i>6/30/21</i>	<i>0910</i>	<i>C</i>	<i>S</i>		<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>	

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Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested I, III, IV, Other (specify) _____
 Special Instructions/QC Requirements _____

Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____

Relinquished by: <i>[Signature]</i> Date/Time: <i>6/30/21 1500</i> Company: <i>CEC</i>	Received by: <i>[Signature]</i> Date/Time: <i>6/30/21 1500</i> Company: <i>CEC</i>
Relinquished by: <i>[Signature]</i> Date/Time: <i>6/30/21 1604</i> Company: <i>ETA</i>	Received by: <i>[Signature]</i> Date/Time: <i>6/30/21 1606</i> Company: <i>ETA-CAL</i>
Relinquished by: _____ Date/Time: _____ Company: _____	Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No
 Cooler Temperature(s) °C and Other Remarks: *50 -> 4.6*
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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: <i>I JORGENSEN</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4	
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page: 2 of 2 <i>2 of 3</i>	
Company: Civil & Environmental Consultants Inc				PW/SID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		TAT Requested (days): <i>RUSH 24HR</i>		Job #: <i>500-201671</i>		Preservation Codes:	
City: Knoxville		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PO #: Purchase Order not required		A HCL		M - Hexane	
State, Zip: TN, 37920		Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		B NaOH		N None	
Phone: 865-340-4914(Tel)		Site:		SSOW#:		C - Zn Acetate		O - AsNaO2	
Email: jrnickfordobrien@cecinc.com		Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs	
Site:		Preservation Code:		X		X		N	
12 ED-RISD-SW53 (MS/MSD)		6/30/21		0912		L		S	
13 ED-RISD-SW54		6/30/21		0925		L		S	
14 ED-RISD-SW57		6/30/21		0927		L		S	
15 ED-RISD-SW58		6/30/21		0935		L		S	
16 ED-RISD-SW59		6/30/21		0937		L		S	
17 ED-RISD-SW60		6/30/21		0950		L		S	
18 ED-RISD-SW61		6/30/21		0952		L		S	
19 ED-RISD-SW62		6/30/21		1005		L		S	
20 ED-RISD-SW63		6/30/21		1007		L		S	
21 ED-RISD-SW64		6/30/21		1005		L		S	
22 ED-RISD-SW65		6/30/21		1017		L		S	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested <input checked="" type="checkbox"/> I/III IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by			Date		Time		Method of Shipment:		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/30/21 1500		Company: CEC		Received by: <i>[Signature]</i> Date/Time: 6/30/21 1700 Company: EJA		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/30/21 1600		Company: EJA		Received by: <i>[Signature]</i> Date/Time: 6/30/21 1606 Company: EJA		
Relinquished by:			Date/Time:		Company:		Received by: Date/Time: Company:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks				

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92691-41294.4	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofins.com		State of Origin		Page 4 of 2 3 of 3	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		Field Filtered Sample (Yes or No) Perform: MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: 500-201671	
City: Knoxville		TAT Requested (days): RUSH 24HR						Preservation Codes:	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B NaOH N None	
Email: jrnickfordobrien@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P - Na2O4S		E NaHSO4 Q - Na2SO3		F MeOH R Na2SO3	
Site:		SSOW#:		G Amchlor S - H2SO4		H - Ascorbic Acid T TSP Dodecahydrate		I - Ice U Acetone	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	
						Preservation Code:		Other:	
						X X N		Special Instructions/Note:	
23 ED-RISD-SW66		6/30/21		1040		C S		1	
24 ED-RISD-SW67		6/30/21		1042		C S		1	
25 ED-RISD-SW68		6/30/21		1055		C S		1	
26 ED-RISD-SW64		6/30/21		1057		C S		1	
27 ED-RISD-SW70		6/30/21		1105		C S		1	
28 ED-RISD-SW71		6/30/21		1107		C S		1	
29 ED-RISD-DUP4		6/30/21		0910		C S		1	
30 ED-RISD-EB10		6/30/21		1426		G W		2	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested <input checked="" type="checkbox"/> I, <input checked="" type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date		Time		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 6/30/21 1500		Company: LEC		Received by: <i>[Signature]</i>		Date/Time: 6/30/21 1500	
Relinquished by: <i>[Signature]</i>		Date/Time: 6/30/21 1606		Company: EA		Received by: <i>[Signature]</i>		Date/Time: 6/30/21 1606	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:		7/8/2021 (Rev. 1)			

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201671-1

Login Number: 201671

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-201671-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 2

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/27/2021 5:40:52 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

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results through
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Job ID: 500-201671-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201671-2

Comments

No additional comments.

Revision

The report being provided is a revision of the original report sent on 7/2/2021. The report (revision 2) is being revised due to: The report was revised to report ED-R1SD-DUP4 as ED-R1SD-SWDUP4 per client.

Revision (1): The report was revised to update all sample IDs per client request. The request is included in this report.

Receipt

The samples were received on 6/30/2021 4:06 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

GC Semi VOA

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW066S (500-201671-23), ED-R1SD-SW067N (500-201671-24), ED-R1SD-SW068S (500-201671-25), ED-R1SD-SW069N (500-201671-26), ED-R1SD-SW070S (500-201671-27) and ED-R1SD-SW071N (500-201671-28). The reagent lot number used was: Z07G073.

Method 8082A: The following samples were reported from the primary column due to PCB-1016 recovering outside control limits for the continuing calibration verification (CCVIS) on the secondary column; therefore, the higher of the two results have been reported. ED-R1SD-SW071N (500-201671-28) and (CCVIS 500-607368/1)

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-607126 and analytical batch 500-607368 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW064S (500-201671-21), ED-R1SD-SW066S (500-201671-23), ED-R1SD-SW067N (500-201671-24) and ED-R1SD-SW071N (500-201671-28).

Method 8082A: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: ED-R1SD-SW069N (500-201671-26). The sample has been quantified and reported as PCB-1242. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW064S

Lab Sample ID: 500-201671-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.6		0.47		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW065N

Lab Sample ID: 500-201671-22

No Detections.

Client Sample ID: ED-R1SD-SW066S

Lab Sample ID: 500-201671-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	4.1		0.48		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW067N

Lab Sample ID: 500-201671-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	5.3		0.47		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW068S

Lab Sample ID: 500-201671-25

No Detections.

Client Sample ID: ED-R1SD-SW069N

Lab Sample ID: 500-201671-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.44		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW070S

Lab Sample ID: 500-201671-27

No Detections.

Client Sample ID: ED-R1SD-SW071N

Lab Sample ID: 500-201671-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.92		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SWDUP4

Lab Sample ID: 500-201671-29

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-201671-21	ED-R1SD-SW064S	Solid	06/30/21 10:15	06/30/21 16:06
500-201671-22	ED-R1SD-SW065N	Solid	06/30/21 10:17	06/30/21 16:06
500-201671-23	ED-R1SD-SW066S	Solid	06/30/21 10:40	06/30/21 16:06
500-201671-24	ED-R1SD-SW067N	Solid	06/30/21 10:42	06/30/21 16:06
500-201671-25	ED-R1SD-SW068S	Solid	06/30/21 10:55	06/30/21 16:06
500-201671-26	ED-R1SD-SW069N	Solid	06/30/21 10:57	06/30/21 16:06
500-201671-27	ED-R1SD-SW070S	Solid	06/30/21 11:05	06/30/21 16:06
500-201671-28	ED-R1SD-SW071N	Solid	06/30/21 11:07	06/30/21 16:06
500-201671-29	ED-R1SD-SWDUP4	Solid	06/30/21 09:10	06/30/21 16:06

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW064S

Lab Sample ID: 500-201671-21

Date Collected: 06/30/21 10:15

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 71.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.47	F1	0.47		mg/Kg	☼	07/01/21 07:15	07/01/21 23:14	20
PCB-1221	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/01/21 23:14	20
PCB-1232	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/01/21 23:14	20
PCB-1242	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/01/21 23:14	20
PCB-1248	1.6		0.47		mg/Kg	☼	07/01/21 07:15	07/01/21 23:14	20
PCB-1254	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/01/21 23:14	20
PCB-1260	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/01/21 23:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	07/01/21 07:15	07/01/21 23:14	20
DCB Decachlorobiphenyl	86		37 - 121	07/01/21 07:15	07/01/21 23:14	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW065N

Lab Sample ID: 500-201671-22

Date Collected: 06/30/21 10:17

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 86.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 00:01	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 00:01	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 00:01	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 00:01	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 00:01	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 00:01	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 00:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	07/01/21 07:15	07/02/21 00:01	20
DCB Decachlorobiphenyl	84		37 - 121	07/01/21 07:15	07/02/21 00:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW066S

Lab Sample ID: 500-201671-23

Date Collected: 06/30/21 10:40

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 68.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.48		0.48		mg/Kg	☼	07/01/21 07:15	07/02/21 00:16	20
PCB-1221	<0.48		0.48		mg/Kg	☼	07/01/21 07:15	07/02/21 00:16	20
PCB-1232	<0.48		0.48		mg/Kg	☼	07/01/21 07:15	07/02/21 00:16	20
PCB-1242	<0.48		0.48		mg/Kg	☼	07/01/21 07:15	07/02/21 00:16	20
PCB-1248	4.1		0.48		mg/Kg	☼	07/01/21 07:15	07/02/21 00:16	20
PCB-1254	<0.48		0.48		mg/Kg	☼	07/01/21 07:15	07/02/21 00:16	20
PCB-1260	<0.48		0.48		mg/Kg	☼	07/01/21 07:15	07/02/21 00:16	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	112		49 - 129	07/01/21 07:15	07/02/21 00:16	20
DCB Decachlorobiphenyl	121		37 - 121	07/01/21 07:15	07/02/21 00:16	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW067N

Lab Sample ID: 500-201671-24

Date Collected: 06/30/21 10:42

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 67.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/02/21 00:32	20
PCB-1221	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/02/21 00:32	20
PCB-1232	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/02/21 00:32	20
PCB-1242	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/02/21 00:32	20
PCB-1248	5.3		0.47		mg/Kg	☼	07/01/21 07:15	07/02/21 00:32	20
PCB-1254	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/02/21 00:32	20
PCB-1260	<0.47		0.47		mg/Kg	☼	07/01/21 07:15	07/02/21 00:32	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/01/21 07:15	07/02/21 00:32	20
DCB Decachlorobiphenyl	82		37 - 121	07/01/21 07:15	07/02/21 00:32	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW068S

Lab Sample ID: 500-201671-25

Date Collected: 06/30/21 10:55

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 00:47	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 00:47	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 00:47	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 00:47	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 00:47	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 00:47	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 00:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	07/01/21 07:15	07/02/21 00:47	20
DCB Decachlorobiphenyl	99		37 - 121	07/01/21 07:15	07/02/21 00:47	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW069N

Lab Sample ID: 500-201671-26

Date Collected: 06/30/21 10:57

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 84.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/02/21 06:48	07/02/21 14:45	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 06:48	07/02/21 14:45	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 06:48	07/02/21 14:45	20
PCB-1242	0.44		0.38		mg/Kg	☼	07/02/21 06:48	07/02/21 14:45	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 06:48	07/02/21 14:45	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 06:48	07/02/21 14:45	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 06:48	07/02/21 14:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/02/21 06:48	07/02/21 14:45	20
DCB Decachlorobiphenyl	99		37 - 121	07/02/21 06:48	07/02/21 14:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW070S

Lab Sample ID: 500-201671-27

Date Collected: 06/30/21 11:05

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 83.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 01:18	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 01:18	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 01:18	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 01:18	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 01:18	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 01:18	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/01/21 07:15	07/02/21 01:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	07/01/21 07:15	07/02/21 01:18	20
DCB Decachlorobiphenyl	80		37 - 121	07/01/21 07:15	07/02/21 01:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW071N

Lab Sample ID: 500-201671-28

Date Collected: 06/30/21 11:07

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 84.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:33	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:33	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:33	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:33	20
PCB-1248	0.92		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:33	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:33	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	07/01/21 07:15	07/02/21 01:33	20
DCB Decachlorobiphenyl	76		37 - 121	07/01/21 07:15	07/02/21 01:33	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SWDUP4

Lab Sample ID: 500-201671-29

Date Collected: 06/30/21 09:10

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:49	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:49	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:49	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:49	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:49	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:49	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 07:15	07/02/21 01:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/01/21 07:15	07/02/21 01:49	20
DCB Decachlorobiphenyl	105		37 - 121	07/01/21 07:15	07/02/21 01:49	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

GC Semi VOA

Prep Batch: 607126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-21	ED-R1SD-SW064S	Total/NA	Solid	3541	
500-201671-22	ED-R1SD-SW065N	Total/NA	Solid	3541	
500-201671-23	ED-R1SD-SW066S	Total/NA	Solid	3541	
500-201671-24	ED-R1SD-SW067N	Total/NA	Solid	3541	
500-201671-25	ED-R1SD-SW068S	Total/NA	Solid	3541	
500-201671-27	ED-R1SD-SW070S	Total/NA	Solid	3541	
500-201671-28	ED-R1SD-SW071N	Total/NA	Solid	3541	
500-201671-29	ED-R1SD-SWDUP4	Total/NA	Solid	3541	
MB 500-607126/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-607126/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201671-21 MS	ED-R1SD-SW064S	Total/NA	Solid	3541	
500-201671-21 MSD	ED-R1SD-SW064S	Total/NA	Solid	3541	

Analysis Batch: 607368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-21	ED-R1SD-SW064S	Total/NA	Solid	8082A	607126
500-201671-22	ED-R1SD-SW065N	Total/NA	Solid	8082A	607126
500-201671-23	ED-R1SD-SW066S	Total/NA	Solid	8082A	607126
500-201671-24	ED-R1SD-SW067N	Total/NA	Solid	8082A	607126
500-201671-25	ED-R1SD-SW068S	Total/NA	Solid	8082A	607126
500-201671-27	ED-R1SD-SW070S	Total/NA	Solid	8082A	607126
500-201671-28	ED-R1SD-SW071N	Total/NA	Solid	8082A	607126
500-201671-29	ED-R1SD-SWDUP4	Total/NA	Solid	8082A	607126
MB 500-607126/1-A	Method Blank	Total/NA	Solid	8082A	607126
LCS 500-607126/2-A	Lab Control Sample	Total/NA	Solid	8082A	607126
500-201671-21 MS	ED-R1SD-SW064S	Total/NA	Solid	8082A	607126
500-201671-21 MSD	ED-R1SD-SW064S	Total/NA	Solid	8082A	607126

Prep Batch: 607388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-26	ED-R1SD-SW069N	Total/NA	Solid	3541	
MB 500-607388/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-607388/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201671-26 MS	ED-R1SD-SW069N	Total/NA	Solid	3541	
500-201671-26 MSD	ED-R1SD-SW069N	Total/NA	Solid	3541	

Analysis Batch: 607555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-26	ED-R1SD-SW069N	Total/NA	Solid	8082A	607388
MB 500-607388/1-A	Method Blank	Total/NA	Solid	8082A	607388
LCS 500-607388/2-A	Lab Control Sample	Total/NA	Solid	8082A	607388
500-201671-26 MS	ED-R1SD-SW069N	Total/NA	Solid	8082A	607388
500-201671-26 MSD	ED-R1SD-SW069N	Total/NA	Solid	8082A	607388

General Chemistry

Analysis Batch: 607073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-21	ED-R1SD-SW064S	Total/NA	Solid	Moisture	
500-201671-22	ED-R1SD-SW065N	Total/NA	Solid	Moisture	
500-201671-23	ED-R1SD-SW066S	Total/NA	Solid	Moisture	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

General Chemistry (Continued)

Analysis Batch: 607073 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-24	ED-R1SD-SW067N	Total/NA	Solid	Moisture	
500-201671-25	ED-R1SD-SW068S	Total/NA	Solid	Moisture	
500-201671-26	ED-R1SD-SW069N	Total/NA	Solid	Moisture	
500-201671-27	ED-R1SD-SW070S	Total/NA	Solid	Moisture	
500-201671-28	ED-R1SD-SW071N	Total/NA	Solid	Moisture	
500-201671-29	ED-R1SD-SWDUP4	Total/NA	Solid	Moisture	

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Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201671-21	ED-R1SD-SW064S	71	86
500-201671-21 MS	ED-R1SD-SW064S	80	97
500-201671-21 MSD	ED-R1SD-SW064S	95	104
500-201671-22	ED-R1SD-SW065N	65	84
500-201671-23	ED-R1SD-SW066S	112	121
500-201671-24	ED-R1SD-SW067N	74	82
500-201671-25	ED-R1SD-SW068S	84	99
500-201671-27	ED-R1SD-SW070S	56	80
500-201671-28	ED-R1SD-SW071N	56	76
500-201671-29	ED-R1SD-SWDUP4	69	105
LCS 500-607126/2-A	Lab Control Sample	66	74
MB 500-607126/1-A	Method Blank	67	84

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-201671-26	ED-R1SD-SW069N	75	99
500-201671-26 MS	ED-R1SD-SW069N	78	98
500-201671-26 MSD	ED-R1SD-SW069N	87	106
LCS 500-607388/2-A	Lab Control Sample	68	92
MB 500-607388/1-A	Method Blank	64	92

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-607126/1-A
Matrix: Solid
Analysis Batch: 607368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607126

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		07/01/21 07:15	07/01/21 22:44	20
PCB-1221	<0.33		0.33		mg/Kg		07/01/21 07:15	07/01/21 22:44	20
PCB-1232	<0.33		0.33		mg/Kg		07/01/21 07:15	07/01/21 22:44	20
PCB-1242	<0.33		0.33		mg/Kg		07/01/21 07:15	07/01/21 22:44	20
PCB-1248	<0.33		0.33		mg/Kg		07/01/21 07:15	07/01/21 22:44	20
PCB-1254	<0.33		0.33		mg/Kg		07/01/21 07:15	07/01/21 22:44	20
PCB-1260	<0.33		0.33		mg/Kg		07/01/21 07:15	07/01/21 22:44	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	67		49 - 129	07/01/21 07:15	07/01/21 22:44	20
DCB Decachlorobiphenyl	84		37 - 121	07/01/21 07:15	07/01/21 22:44	20

Lab Sample ID: LCS 500-607126/2-A
Matrix: Solid
Analysis Batch: 607368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607126

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.23		mg/Kg		74	57 - 120
PCB-1260	1.67	1.26		mg/Kg		76	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	66		49 - 129
DCB Decachlorobiphenyl	74		37 - 121

Lab Sample ID: 500-201671-21 MS
Matrix: Solid
Analysis Batch: 607368

Client Sample ID: ED-R1SD-SW064S
Prep Type: Total/NA
Prep Batch: 607126

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
PCB-1016	<0.47	F1	2.30	3.07	F1	mg/Kg	☼	134	57 - 120
PCB-1260	<0.47		2.30	2.20		mg/Kg	☼	95	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	80		49 - 129
DCB Decachlorobiphenyl	97		37 - 121

Lab Sample ID: 500-201671-21 MSD
Matrix: Solid
Analysis Batch: 607368

Client Sample ID: ED-R1SD-SW064S
Prep Type: Total/NA
Prep Batch: 607126

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
	Result	Qualifier		Result	Qualifier					RPD	Limit
PCB-1016	<0.47	F1	2.33	3.22	F1	mg/Kg	☼	138	57 - 120	5	30
PCB-1260	<0.47		2.33	2.29		mg/Kg	☼	98	61 - 125	4	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	95		49 - 129
DCB Decachlorobiphenyl	104		37 - 121

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 500-607388/1-A
Matrix: Solid
Analysis Batch: 607555

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.33		0.33		mg/Kg		07/02/21 06:48	07/02/21 14:14	20
PCB-1221	<0.33		0.33		mg/Kg		07/02/21 06:48	07/02/21 14:14	20
PCB-1232	<0.33		0.33		mg/Kg		07/02/21 06:48	07/02/21 14:14	20
PCB-1242	<0.33		0.33		mg/Kg		07/02/21 06:48	07/02/21 14:14	20
PCB-1248	<0.33		0.33		mg/Kg		07/02/21 06:48	07/02/21 14:14	20
PCB-1254	<0.33		0.33		mg/Kg		07/02/21 06:48	07/02/21 14:14	20
PCB-1260	<0.33		0.33		mg/Kg		07/02/21 06:48	07/02/21 14:14	20

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		49 - 129	07/02/21 06:48	07/02/21 14:14	20
DCB Decachlorobiphenyl	92		37 - 121	07/02/21 06:48	07/02/21 14:14	20

Lab Sample ID: LCS 500-607388/2-A
Matrix: Solid
Analysis Batch: 607555

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	1.67	1.29		mg/Kg		77	57 - 120
PCB-1260	1.67	1.55		mg/Kg		93	61 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	68		49 - 129
DCB Decachlorobiphenyl	92		37 - 121

Lab Sample ID: 500-201671-26 MS
Matrix: Solid
Analysis Batch: 607555

Client Sample ID: ED-R1SD-SW069N
Prep Type: Total/NA
Prep Batch: 607388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
PCB-1016	<0.38		1.97	1.80		mg/Kg	☼	91	57 - 120
PCB-1260	<0.38		1.97	1.82		mg/Kg	☼	93	61 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	78		49 - 129
DCB Decachlorobiphenyl	98		37 - 121

Lab Sample ID: 500-201671-26 MSD
Matrix: Solid
Analysis Batch: 607555

Client Sample ID: ED-R1SD-SW069N
Prep Type: Total/NA
Prep Batch: 607388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	<0.38		1.97	1.94		mg/Kg	☼	99	57 - 120	4	30
PCB-1260	<0.38		1.97	2.03		mg/Kg	☼	103	61 - 125	7	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Tetrachloro-m-xylene	87		49 - 129
DCB Decachlorobiphenyl	106		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW064S

Lab Sample ID: 500-201671-21

Date Collected: 06/30/21 10:15

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW064S

Lab Sample ID: 500-201671-21

Date Collected: 06/30/21 10:15

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 71.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607126	07/01/21 07:15	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/01/21 23:14	SS	TAL CHI

Client Sample ID: ED-R1SD-SW065N

Lab Sample ID: 500-201671-22

Date Collected: 06/30/21 10:17

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW065N

Lab Sample ID: 500-201671-22

Date Collected: 06/30/21 10:17

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607126	07/01/21 07:15	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 00:01	SS	TAL CHI

Client Sample ID: ED-R1SD-SW066S

Lab Sample ID: 500-201671-23

Date Collected: 06/30/21 10:40

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW066S

Lab Sample ID: 500-201671-23

Date Collected: 06/30/21 10:40

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 68.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607126	07/01/21 07:15	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 00:16	SS	TAL CHI

Client Sample ID: ED-R1SD-SW067N

Lab Sample ID: 500-201671-24

Date Collected: 06/30/21 10:42

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW067N

Lab Sample ID: 500-201671-24

Date Collected: 06/30/21 10:42

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 67.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607126	07/01/21 07:15	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 00:32	SS	TAL CHI

Client Sample ID: ED-R1SD-SW068S

Lab Sample ID: 500-201671-25

Date Collected: 06/30/21 10:55

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW068S

Lab Sample ID: 500-201671-25

Date Collected: 06/30/21 10:55

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607126	07/01/21 07:15	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 00:47	SS	TAL CHI

Client Sample ID: ED-R1SD-SW069N

Lab Sample ID: 500-201671-26

Date Collected: 06/30/21 10:57

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW069N

Lab Sample ID: 500-201671-26

Date Collected: 06/30/21 10:57

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607388	07/02/21 06:48	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607555	07/02/21 14:45	JB	TAL CHI

Client Sample ID: ED-R1SD-SW070S

Lab Sample ID: 500-201671-27

Date Collected: 06/30/21 11:05

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Client Sample ID: ED-R1SD-SW070S

Lab Sample ID: 500-201671-27

Date Collected: 06/30/21 11:05

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607126	07/01/21 07:15	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 01:18	SS	TAL CHI

Client Sample ID: ED-R1SD-SW071N

Lab Sample ID: 500-201671-28

Date Collected: 06/30/21 11:07

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW071N

Lab Sample ID: 500-201671-28

Date Collected: 06/30/21 11:07

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607126	07/01/21 07:15	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 01:33	SS	TAL CHI

Client Sample ID: ED-R1SD-SWDUP4

Lab Sample ID: 500-201671-29

Date Collected: 06/30/21 09:10

Matrix: Solid

Date Received: 06/30/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607073	06/30/21 18:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-SWDUP4

Lab Sample ID: 500-201671-29

Date Collected: 06/30/21 09:10

Matrix: Solid

Date Received: 06/30/21 16:06

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607126	07/01/21 07:15	CLL	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 01:49	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Kintz, Robin

From: Welch, Garrett <gwelch@cecinc.com>
Sent: Tuesday, July 6, 2021 1:17 PM
To: Kintz, Robin
Cc: Rickford O'Brien, Jenny
Subject: Arconic - Elliott Ditch - Samples Submitted on 6/30
Attachments: J201671-1 UDS Level 2 Report Final Report.pdf; J201671-2 UDS Level 2 Report Final Report.pdf

EXTERNAL EMAIL*

Hi Robin,

For whatever reason, we miss labeled the samples sent to the lab on 6/30. Below is what the sample nomenclature should have been (note: the sample numbers are correct):

ED-R1SD-SW044S	6/30/2021
ED-R1SD-SW045N	6/30/2021
ED-R1SD-SW046S	6/30/2021
ED-R1SD-SW047N	6/30/2021
ED-R1SD-SW048S	6/30/2021
ED-R1SD-SW049N	6/30/2021
ED-R1SD-SW050S	6/30/2021
ED-R1SD-SW051N	6/30/2021
ED-R1SD-SW052S	6/30/2021
ED-R1SD-SW053N	6/30/2021
ED-R1SD-SW054S	6/30/2021
ED-R1SD-SW055N	6/30/2021
ED-R1SD-SW056S	6/30/2021
ED-R1SD-SW057N	6/30/2021
ED-R1SD-SW058S	6/30/2021
ED-R1SD-SW059N	6/30/2021
ED-R1SD-SW060S	6/30/2021
ED-R1SD-SW061N	6/30/2021
ED-R1SD-SW062S	6/30/2021
ED-R1SD-SW063N	6/30/2021
ED-R1SD-SW064S	6/30/2021
ED-R1SD-SW065N	6/30/2021
ED-R1SD-SW066S	6/30/2021
ED-R1SD-SW067N	6/30/2021
ED-R1SD-SW068S	6/30/2021

ED-R1SD-SW069N	6/30/2021
ED-R1SD-SW070S	6/30/2021
ED-R1SD-SW071N	6/30/2021

Can you have the lab reports revised? No rush on this.

Garrett

Garrett A. Welch, L.P.G.* | Project Manager

Civil & Environmental Consultants, Inc.

2704 Cherokee Farm Way, Suite 101, Knoxville, TN 37920

direct 865.340.4914 **office** 865.977.9997 **mobile** 865.440.1655

www.cecinc.com

*Licensed Professional Geologist in Tennessee & Indiana

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: F JORGENSEN		Lab PM: Kintz Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4			
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 4 of 4 1 of 3			
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: 500-201671	
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State, Zip: TN, 37920		Due Date Requested:		TAT Requested (days): RUSH 24HR		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Preservation Codes		Other:	
Phone: 865-340-4914(Tel) 500-201671 COC		PO #:		Purchase Order not required		WO #:		A HCL M - Hexane B NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E NaHSO4 Q - Na2SO3 F - MeOH R Na2S2O3 G - Amchlor S H2SO4 H - Ascorbic Acid T TSP Dodecahydrate I - Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify)			
Email: jrnickfordobrien@cecinc.com		Project #:		50019033		SSOW#:		Field Filtered Sample (Yes or No)		Total Number of containers	
Site:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Special Instructions/Note	
Sample Identification		Preservation Code:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs			
1 ED-RISD-SW44		6/30/21 0800		C S		X		X		1	
2 ED-RISD-SW45		6/30/21 0802		C S		X		X		1	
3 ED-RISD-SW46		6/30/21 0810		C S		X		X		1	
4 ED-RISD-SW47		6/30/21 0812		C S		X		X		1	
5 ED-RISD-SW48		6/30/21 0825		C S		X		X		1	
6 ED-RISD-SW49		6/30/21 0827		C S		X		X		1	
7 ED-RISD-SW50		6/30/21 0835		C S		X		X		1	
8 ED-RISD-SW51		6/30/21 0837		C S		X		X		1	
9 ED-RISD-SW52		6/30/21 0850		C S		X		X		1	
10 ED-RISD-SW53		6/30/21 0852		C S		X		X		1	
11 ED-RISD-SW54		6/30/21 0910		C S		X		X		1	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date			Time			Method of Shipment:		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/30/21 1500			Company: CEC			Received by: <i>[Signature]</i>		
Relinquished by: <i>[Signature]</i>			Date/Time: 6/30/21 1604			Company: ECT			Received by: <i>[Signature]</i>		
Relinquished by:			Date/Time:			Company:			Received by:		
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 50 → 4.6				7/27/2021 (Rev. 2)			

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: <i>I. JORGENSEN</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4																																					
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: <i>2 of 3</i>																																					
Company: Civil & Environmental Consultants Inc		PW/SID:		Analysis Requested						Job #: <i>500-201671</i>																																			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		<table border="1"> <tr> <td rowspan="5">Field Filtered Sample (Yes or No)</td> <td rowspan="5">Perform MS/MSD (Yes or No)</td> <td rowspan="5">8082A - PCBs</td> <td colspan="6"></td> <td rowspan="5">Total Number of containers</td> </tr> <tr><td colspan="6"></td></tr> <tr><td colspan="6"></td></tr> <tr><td colspan="6"></td></tr> <tr><td colspan="6"></td></tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs							Total Number of containers																									Preservation Codes:	
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs											Total Number of containers																																
City: Knoxville		TAT Requested (days): <i>RUSH 24HR</i>		A HCL		M - Hexane																																							
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		B NaOH		N None																																							
Phone: 865-340-4914(Tel)		PO #:		C - Zn Acetate		O - AsNaO2																																							
Email: jrnickfordobrien@cecinc.com		Purchase Order not required		D - Nitric Acid		P Na2O4S																																							
Project Name: Arconic PCB Rush Project - Lafayette, IN		WO #:		E NaHSO4		Q - Na2SO3																																							
Site:		Project #: 50019033		F MeOH		R Na2S2O3																																							
		SSOW#:		G - Amchlor		S - H2SO4																																							
				H - Ascorbic Acid		T - TSP Dodecahydrate																																							
				I - Ice		U - Acetone																																							
				J DI Water		V - MCAA																																							
				K EDTA		W pH 4-5																																							
				L EDA		Z other (specify)																																							
				Other:																																									

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Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note:
ED-RISD-SW 53 (MS/MSD)	6/30/21	0912	L	S	X	X		3	
ED-RISD-SW 54	6/30/21	0925	L	S	X	X		1	
ED-RISD-SW 57	6/30/21	0927	L	S	X	X		1	
ED-RISD-SW 58	6/30/21	0935	L	S	X	X		1	
ED-RISD-SW 59	6/30/21	0937	L	S	X	X		1	
ED-RISD-SW 60	6/30/21	0950	L	S	X	X		1	
ED-RISD-SW 61	6/30/21	0952	L	S	X	X		1	
ED-RISD-SW 62	6/30/21	1005	L	S	X	X		1	
ED-RISD-SW 63	6/30/21	1007	L	S	X	X		1	
ED-RISD-SW 64	6/30/21	1005	L	S	X	X		1	
ED-RISD-SW 65	6/30/21	1017	L	S	X	X		1	

Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab
Deliverable Requested <input checked="" type="checkbox"/> III IV, Other (specify)				Archive For _____ Months			
Special Instructions/QC Requirements							

Empty Kit Relinquished by		Date		Time		Method of Shipment:	
Relinquished by: <i>[Signature]</i>	Date/Time: 6/30/21 1500	Company: CEC	Received by: <i>[Signature]</i>	Date/Time: 6/30/21 1700	Company: EY	Received by: <i>[Signature]</i>	Date/Time: 6/30/21 1606
Relinquished by: <i>[Signature]</i>	Date/Time: 6/30/21	Company: EY	Received by: <i>[Signature]</i>	Date/Time: 6/30/21	Company: EY	Received by: <i>[Signature]</i>	Date/Time: 6/30/21

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
--	-----------------	--

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92691-41294.4	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin		Page 4 of 2 3 of 3	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		Field Filtered Sample (Yes or No) Perform: MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: 500-201671	
City: Knoxville		TAT Requested (days): RUSH 24HR						Preservation Codes:	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B NaOH N None	
Email: jrickfordobrien@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P - Na2O4S		E NaHSO4 Q - Na2SO3		F MeOH R Na2SO3	
Site:		SSOW#:		G Amchlor S - H2SO4		H - Ascorbic Acid T TSP Dodecahydrate		I - Ice U Acetone	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	
						Preservation Code:		Other:	
						X X N		Special Instructions/Note:	
23 ED-RISD-SW66		6/30/21		1040		C S		1	
24 ED-RISD-SW67		6/30/21		1042		C S		1	
25 ED-RISD-SW68		6/30/21		1055		C S		1	
26 ED-RISD-SW64		6/30/21		1057		C S		1	
27 ED-RISD-SW70		6/30/21		1105		C S		1	
28 ED-RISD-SW71		6/30/21		1107		C S		1	
29 ED-RISD-DUP4		6/30/21		0910		C S		1	
30 ED-RISD-EB10		6/30/21		1426		G W		2	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested 1, III, IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date		Time		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 6/30/21 1500		Company: LEC		Received by: <i>[Signature]</i>		Date/Time: 6/30/21 1500	
Relinquished by: <i>[Signature]</i>		Date/Time: 6/30/21 1606		Company: EA		Received by: <i>[Signature]</i>		Date/Time: 6/30/21 1606	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:		7/27/2021 (Rev. 2) Ver 11/01/2020			

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201671-2

Login Number: 201671

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201671-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/8/2021 4:08:17 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Job ID: 500-201671-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201671-3

Comments

No additional comments.

Receipt

The samples were received on 6/30/2021 4:06 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

GC Semi VOA

Method 8082A: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-607649 and analytical batch 500-607853 recovered outside control limits for the following analytes: PCB-1260.

Method 8082A: The laboratory control sample (LCS) for preparation batch 500-607649 and analytical batch 500-607853 recovered outside control limits for the following analytes: PCB-1016 and PCB-1260. These analytes were biased low in the LCS and were not detected in the associated samples. The laboratory control sample duplicate (LCSD) was within limits; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Client Sample ID: ED-R1SD-EB10

Lab Sample ID: 500-201671-30

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201671-30	ED-R1SD-EB10	Water	06/30/21 14:20	06/30/21 16:06	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Client Sample ID: ED-R1SD-EB10

Lab Sample ID: 500-201671-30

Date Collected: 06/30/21 14:20

Matrix: Water

Date Received: 06/30/21 16:06

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00039	*-	0.00039		mg/L		07/02/21 21:23	07/06/21 11:26	1
PCB-1221	<0.00039		0.00039		mg/L		07/02/21 21:23	07/06/21 11:26	1
PCB-1232	<0.00039		0.00039		mg/L		07/02/21 21:23	07/06/21 11:26	1
PCB-1242	<0.00039		0.00039		mg/L		07/02/21 21:23	07/06/21 11:26	1
PCB-1248	<0.00039		0.00039		mg/L		07/02/21 21:23	07/06/21 11:26	1
PCB-1254	<0.00039		0.00039		mg/L		07/02/21 21:23	07/06/21 11:26	1
PCB-1260	<0.00039	*- *1	0.00039		mg/L		07/02/21 21:23	07/06/21 11:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		30 - 120	07/02/21 21:23	07/06/21 11:26	1
DCB Decachlorobiphenyl	58		30 - 140	07/02/21 21:23	07/06/21 11:26	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

GC Semi VOA

Prep Batch: 607649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-30	ED-R1SD-EB10	Total/NA	Water	3510C	
MB 500-607649/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-607649/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-607649/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 607853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201671-30	ED-R1SD-EB10	Total/NA	Water	8082A	607649
MB 500-607649/1-A	Method Blank	Total/NA	Water	8082A	607649
LCS 500-607649/4-A	Lab Control Sample	Total/NA	Water	8082A	607649
LCSD 500-607649/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	607649

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201671-30	ED-R1SD-EB10	65	58
LCS 500-607649/4-A	Lab Control Sample	38	35
LCSD 500-607649/5-A	Lab Control Sample Dup	47	55
MB 500-607649/1-A	Method Blank	32	34

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-607649/1-A
Matrix: Water
Analysis Batch: 607853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607649

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1221	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1232	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1242	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1248	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1254	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1260	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	32		30 - 120	07/02/21 21:23	07/06/21 09:33	1
DCB Decachlorobiphenyl	34		30 - 140	07/02/21 21:23	07/06/21 09:33	1

Lab Sample ID: LCS 500-607649/4-A
Matrix: Water
Analysis Batch: 607853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607649

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00184	*-	mg/L		46	56 - 120
PCB-1260	0.00400	0.00198	*-	mg/L		50	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	38		30 - 120
DCB Decachlorobiphenyl	35		30 - 140

Lab Sample ID: LCSD 500-607649/5-A
Matrix: Water
Analysis Batch: 607853

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 607649

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00225		mg/L		56	56 - 120	20	20
PCB-1260	0.00400	0.00252	*1	mg/L		63	53 - 137	24	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	47		30 - 120
DCB Decachlorobiphenyl	55		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Client Sample ID: ED-R1SD-EB10

Lab Sample ID: 500-201671-30

Date Collected: 06/30/21 14:20

Matrix: Water

Date Received: 06/30/21 16:06

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			607649	07/02/21 21:23	ACK	TAL CHI
Total/NA	Analysis	8082A		1	607853	07/06/21 11:26	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201671-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing
America

Client Information		Sampler: F JORGENSEN		Lab PM: Kintz Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4					
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 4 of 4 1 of 3					
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: 500-201671			
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State, Zip: TN, 37920		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs						Total Number of containers		Preservation Codes A HCL M - Hexane B NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q - Na2SO3 F - MeOH R Na2S2O3 G - Amchlor S H2SO4 H - Ascorbic Acid T TSP Dodecahydrate I - Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify)	
Phone: 865-340-4914(Tel) 500-201671 COC		TAT Requested (days): RUSH 24HR											
Email: jrnickfordobrien@cecinc.com		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No											
Project Name: Arconic PCB Rush Project - Lafayette, IN		PO #: Purchase Order not required											
Site:		WO#:											
Project #: 50019033		SSOW#:											
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Preservation Code:		Special Instructions/Note	
1	ED-RISD-SW44	6/30/21	0800	C	S					X			
2	ED-RISD-SW45	6/30/21	0802	C	S					X			
3	ED-RISD-SW46	6/30/21	0810	C	S					X			
4	ED-RISD-SW47	6/30/21	0812	C	S					X			
5	ED-RISD-SW48	6/30/21	0825	C	S					X			
6	ED-RISD-SW49	6/30/21	0827	C	S					X			
7	ED-RISD-SW50	6/30/21	0835	C	S					X			
8	ED-RISD-SW51	6/30/21	0837	C	S					X			
9	ED-RISD-SW52	6/30/21	0850	C	S					X			
10	ED-RISD-SW53	6/30/21	0852	C	S					X			
11	ED-RISD-SW54	6/30/21	0910	C	S					X			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements							
Empty Kit Relinquished by				Date		Time		Method of Shipment:					
Relinquished by: <i>[Signature]</i>		Date/Time: 6/30/21 1500		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 6/30/21 1500		Company: CEC			
Relinquished by: <i>[Signature]</i>		Date/Time: 6/30/21 1604		Company: ETA		Received by: <i>[Signature]</i>		Date/Time: 6/30/21 1606		Company: ETA-CPL			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 50 → 4.6									

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: <i>F. JORGENSEN</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4																																																																																																																									
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page: <i>2 of 3</i>																																																																																																																									
Company: Civil & Environmental Consultants Inc		PW/SID:		Analysis Requested						Job #: <i>500-201671</i>																																																																																																																							
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		<table border="1"> <tr> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Field Filtered Sample (Yes or No)</td> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Perform MS/MSD (Yes or No)</td> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">8082A - PCBs</td> <td colspan="6"></td> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Number of containers</td> <td colspan="2">Preservation Codes:</td> </tr> <tr> <td colspan="6"></td> <td>A HCL</td> <td>M - Hexane</td> </tr> <tr> <td colspan="6"></td> <td>B NaOH</td> <td>N None</td> </tr> <tr> <td colspan="6"></td> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td colspan="6"></td> <td>D - Nitric Acid</td> <td>P Na2O4S</td> </tr> <tr> <td colspan="6"></td> <td>E NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td colspan="6"></td> <td>F MeOH</td> <td>R Na2S2O3</td> </tr> <tr> <td colspan="6"></td> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td colspan="6"></td> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td colspan="6"></td> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td colspan="6"></td> <td>J DI Water</td> <td>V - MCAA</td> </tr> <tr> <td colspan="6"></td> <td>K EDTA</td> <td>W pH 4-5</td> </tr> <tr> <td colspan="6"></td> <td>L EDA</td> <td>Z other (specify)</td> </tr> <tr> <td colspan="6"></td> <td colspan="2">Other:</td> <td colspan="2"></td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs							Total Number of containers	Preservation Codes:								A HCL	M - Hexane							B NaOH	N None							C - Zn Acetate	O - AsNaO2							D - Nitric Acid	P Na2O4S							E NaHSO4	Q - Na2SO3							F MeOH	R Na2S2O3							G - Amchlor	S - H2SO4							H - Ascorbic Acid	T - TSP Dodecahydrate							I - Ice	U - Acetone							J DI Water	V - MCAA							K EDTA	W pH 4-5							L EDA	Z other (specify)							Other:				TAT Requested (days): <i>RUSH 24HR</i>	
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<i>13 ED-RISD-SW 54</i>		<i>6/30/21</i>		<i>0925</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>14 ED-RISD-SW 57</i>		<i>6/30/21</i>		<i>0927</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>15 ED-RISD-SW 58</i>		<i>6/30/21</i>		<i>0935</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>16 ED-RISD-SW 59</i>		<i>6/30/21</i>		<i>0937</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>17 ED-RISD-SW 60</i>		<i>6/30/21</i>		<i>0950</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>18 ED-RISD-SW 61</i>		<i>6/30/21</i>		<i>0952</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>19 ED-RISD-SW 62</i>		<i>6/30/21</i>		<i>1005</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>20 ED-RISD-SW 63</i>		<i>6/30/21</i>		<i>1007</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>21 ED-RISD-SW 64</i>		<i>6/30/21</i>		<i>1005</i>		<i>L S</i>				X		X				1																																																																																																																	
<i>22 ED-RISD-SW 65</i>		<i>6/30/21</i>		<i>1017</i>		<i>L S</i>				X		X				1																																																																																																																	
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Relinquished by: <i>P. N. M.</i>					Date/Time: <i>6/30/21 1600</i>					Company: <i>EY</i>					Received by: <i>[Signature]</i>					Date/Time: <i>6/30/21 1600</i>					Company: <i>ETA/CHI</i>																																																																																																								
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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294.4	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 4 of 2 3 of 3	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform: MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: 500-201671	
City: Knoxville		TAT Requested (days): RUSH 24HR						Preservation Codes:	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B NaOH N None	
Email: jrnickfordobrien@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P - Na2O4S		E NaHSO4 Q - Na2SO3		F MeOH R Na2S2O3	
Site:		SSOW#:		G Amchlor S - H2SO4		H - Ascorbic Acid T TSP Dodecahydrate		I - Ice U Acetone	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	
						Preservation Code:		Other:	
						X X N		Special Instructions/Note:	
23 ED-RISD-SW66		6/30/21		1040		C S		X 1	
24 ED-RISD-SW67		6/30/21		1042		C S		X 1	
25 ED-RISD-SW68		6/30/21		1055		C S		X 1	
26 ED-RISD-SW64		6/30/21		1057		C S		X 1	
27 ED-RISD-SW70		6/30/21		1105		C S		X 1	
28 ED-RISD-SW71		6/30/21		1107		C S		X 1	
29 ED-RISD-DUP4		6/30/21		0910		C S		X 1	
30 ED-RISD-EB10		6/30/21		1426		G W		X 2	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested 1, III, IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 6/30/21 1500		Company: LEC		Received by: <i>[Signature]</i>		Date/Time: 6/30/21 1500	
Relinquished by: <i>[Signature]</i>		Date/Time: 6/30/21 1606		Company: EA		Received by: <i>[Signature]</i>		Date/Time: 6/30/21 1606	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No:		Cooler Temperature(s) °C and Other Remarks:		7/8/2021			

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201671-3

Login Number: 201671

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201737-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 1

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/8/2021 4:15:12 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Job ID: 500-201737-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201737-1

Comments

No additional comments.

Receipt

The samples were received on 7/1/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5° C.

Revised Report

The report was revised to change sample ID from ED-R1SD-SW005N-1 to ED-R1SD-SW005N-2 per client request. ED-R1SD-SW005N-2 (500-201737-15)

GC Semi VOA

Method 8082A: The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW013N-1 (500-201737-20). The reagent lot number used was: Z07G073.

Method 8082A: The following samples were reported from the primary column due to PCB-1016 recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The %RPD between the primary and confirmation column exceeded 40% for PCB-1260 for the following samples.: ED-R1SD-SW013N-1 (500-201737-20). Due to the continuing calibration verification (CCVIS) recovering outside of control limits on the secondary column for PCB-1016, the higher values have been reported.

Method 8082A: The following sample appears to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: ED-R1SD-SW013N-1 (500-201737-20). The sample has been quantified and reported as PCB-1248. Due to the poor match with the Aroclor standard(s), there is increased qualitative and quantitative uncertainty associated with this result.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1016: ED-R1SD-021-2 (500-201737-10).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-009-2

Lab Sample ID: 500-201737-1

No Detections.

Client Sample ID: ED-R1SD-010-2

Lab Sample ID: 500-201737-2

No Detections.

Client Sample ID: ED-R1SD-011-2

Lab Sample ID: 500-201737-3

No Detections.

Client Sample ID: ED-R1SD-012-2

Lab Sample ID: 500-201737-4

No Detections.

Client Sample ID: ED-R1SD-014-2

Lab Sample ID: 500-201737-5

No Detections.

Client Sample ID: ED-R1SD-015-2

Lab Sample ID: 500-201737-6

No Detections.

Client Sample ID: ED-R1SD-017-2

Lab Sample ID: 500-201737-7

No Detections.

Client Sample ID: ED-R1SD-018-2

Lab Sample ID: 500-201737-8

No Detections.

Client Sample ID: ED-R1SD-020-2

Lab Sample ID: 500-201737-9

No Detections.

Client Sample ID: ED-R1SD-021-2

Lab Sample ID: 500-201737-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	3.8	F1	0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-022-2

Lab Sample ID: 500-201737-11

No Detections.

Client Sample ID: ED-R1SD-024-2

Lab Sample ID: 500-201737-12

No Detections.

Client Sample ID: ED-R1SD-029-2

Lab Sample ID: 500-201737-13

No Detections.

Client Sample ID: ED-R1SD-SW003N-2

Lab Sample ID: 500-201737-14

No Detections.

Client Sample ID: ED-R1SD-SW005N-2

Lab Sample ID: 500-201737-15

No Detections.

Client Sample ID: ED-R1SD-SW007N-1

Lab Sample ID: 500-201737-16

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW009N-1

Lab Sample ID: 500-201737-17

No Detections.

Client Sample ID: ED-R1SD-SW010S-1

Lab Sample ID: 500-201737-18

No Detections.

Client Sample ID: ED-R1SD-SW011N-1

Lab Sample ID: 500-201737-19

No Detections.

Client Sample ID: ED-R1SD-SW013N-1

Lab Sample ID: 500-201737-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.1		0.41		mg/Kg	20	✱	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201737-1	ED-R1SD-009-2	Solid	07/01/21 10:00	07/01/21 16:00	
500-201737-2	ED-R1SD-010-2	Solid	07/01/21 10:10	07/01/21 16:00	
500-201737-3	ED-R1SD-011-2	Solid	07/01/21 10:20	07/01/21 16:00	
500-201737-4	ED-R1SD-012-2	Solid	07/01/21 10:30	07/01/21 16:00	
500-201737-5	ED-R1SD-014-2	Solid	07/01/21 10:40	07/01/21 16:00	
500-201737-6	ED-R1SD-015-2	Solid	07/01/21 11:00	07/01/21 16:00	
500-201737-7	ED-R1SD-017-2	Solid	07/01/21 11:15	07/01/21 16:00	
500-201737-8	ED-R1SD-018-2	Solid	07/01/21 11:20	07/01/21 16:00	
500-201737-9	ED-R1SD-020-2	Solid	07/01/21 11:30	07/01/21 16:00	
500-201737-10	ED-R1SD-021-2	Solid	07/01/21 12:50	07/01/21 16:00	
500-201737-11	ED-R1SD-022-2	Solid	07/01/21 13:00	07/01/21 16:00	
500-201737-12	ED-R1SD-024-2	Solid	07/01/21 13:10	07/01/21 16:00	
500-201737-13	ED-R1SD-029-2	Solid	07/01/21 13:20	07/01/21 16:00	
500-201737-14	ED-R1SD-SW003N-2	Solid	07/01/21 11:41	07/01/21 16:00	
500-201737-15	ED-R1SD-SW005N-2	Solid	07/01/21 11:43	07/01/21 16:00	
500-201737-16	ED-R1SD-SW007N-1	Solid	07/01/21 11:46	07/01/21 16:00	
500-201737-17	ED-R1SD-SW009N-1	Solid	07/01/21 11:55	07/01/21 16:00	
500-201737-18	ED-R1SD-SW010S-1	Solid	07/01/21 11:57	07/01/21 16:00	
500-201737-19	ED-R1SD-SW011N-1	Solid	07/01/21 11:59	07/01/21 16:00	
500-201737-20	ED-R1SD-SW013N-1	Solid	07/01/21 12:10	07/01/21 16:00	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-009-2

Lab Sample ID: 500-201737-1

Date Collected: 07/01/21 10:00

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 81.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 02:35	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 02:35	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 02:35	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 02:35	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 02:35	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 02:35	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 02:35	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		49 - 129	07/01/21 17:33	07/02/21 02:35	20
DCB Decachlorobiphenyl	99		37 - 121	07/01/21 17:33	07/02/21 02:35	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-010-2

Lab Sample ID: 500-201737-2

Date Collected: 07/01/21 10:10

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 85.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 02:50	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 02:50	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 02:50	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 02:50	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 02:50	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 02:50	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 02:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/01/21 17:33	07/02/21 02:50	20
DCB Decachlorobiphenyl	85		37 - 121	07/01/21 17:33	07/02/21 02:50	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-011-2

Lab Sample ID: 500-201737-3

Date Collected: 07/01/21 10:20

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:05	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:05	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:05	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:05	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:05	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:05	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/01/21 17:33	07/02/21 03:05	20
DCB Decachlorobiphenyl	82		37 - 121	07/01/21 17:33	07/02/21 03:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-012-2

Lab Sample ID: 500-201737-4

Date Collected: 07/01/21 10:30

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 89.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	✳	07/01/21 17:33	07/02/21 03:21	20
PCB-1221	<0.37		0.37		mg/Kg	✳	07/01/21 17:33	07/02/21 03:21	20
PCB-1232	<0.37		0.37		mg/Kg	✳	07/01/21 17:33	07/02/21 03:21	20
PCB-1242	<0.37		0.37		mg/Kg	✳	07/01/21 17:33	07/02/21 03:21	20
PCB-1248	<0.37		0.37		mg/Kg	✳	07/01/21 17:33	07/02/21 03:21	20
PCB-1254	<0.37		0.37		mg/Kg	✳	07/01/21 17:33	07/02/21 03:21	20
PCB-1260	<0.37		0.37		mg/Kg	✳	07/01/21 17:33	07/02/21 03:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/01/21 17:33	07/02/21 03:21	20
DCB Decachlorobiphenyl	80		37 - 121	07/01/21 17:33	07/02/21 03:21	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-014-2

Lab Sample ID: 500-201737-5

Date Collected: 07/01/21 10:40

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 88.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 03:36	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 03:36	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 03:36	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 03:36	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 03:36	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 03:36	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 03:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/01/21 17:33	07/02/21 03:36	20
DCB Decachlorobiphenyl	87		37 - 121	07/01/21 17:33	07/02/21 03:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-015-2

Lab Sample ID: 500-201737-6

Date Collected: 07/01/21 11:00

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:52	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:52	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:52	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:52	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:52	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:52	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 03:52	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	07/01/21 17:33	07/02/21 03:52	20
DCB Decachlorobiphenyl	110		37 - 121	07/01/21 17:33	07/02/21 03:52	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-017-2

Lab Sample ID: 500-201737-7

Date Collected: 07/01/21 11:15

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 89.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 04:07	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 04:07	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 04:07	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 04:07	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 04:07	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 04:07	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 04:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	07/01/21 17:33	07/02/21 04:07	20
DCB Decachlorobiphenyl	92		37 - 121	07/01/21 17:33	07/02/21 04:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-018-2

Lab Sample ID: 500-201737-8

Date Collected: 07/01/21 11:20

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 82.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 04:22	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 04:22	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 04:22	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 04:22	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 04:22	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 04:22	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 04:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/01/21 17:33	07/02/21 04:22	20
DCB Decachlorobiphenyl	84		37 - 121	07/01/21 17:33	07/02/21 04:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-020-2

Lab Sample ID: 500-201737-9

Date Collected: 07/01/21 11:30

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 87.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 04:38	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 04:38	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 04:38	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 04:38	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 04:38	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 04:38	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 04:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	07/01/21 17:33	07/02/21 04:38	20
DCB Decachlorobiphenyl	81		37 - 121	07/01/21 17:33	07/02/21 04:38	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-021-2

Lab Sample ID: 500-201737-10

Date Collected: 07/01/21 12:50

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 82.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	3.8	F1	0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 04:53	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 04:53	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 04:53	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 04:53	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 04:53	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 04:53	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 04:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/01/21 17:33	07/02/21 04:53	20
DCB Decachlorobiphenyl	84		37 - 121	07/01/21 17:33	07/02/21 04:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-022-2

Lab Sample ID: 500-201737-11

Date Collected: 07/01/21 13:00

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:39	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:39	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:39	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:39	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:39	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:39	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	07/01/21 17:33	07/02/21 05:39	20
DCB Decachlorobiphenyl	86		37 - 121	07/01/21 17:33	07/02/21 05:39	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-024-2

Lab Sample ID: 500-201737-12

Date Collected: 07/01/21 13:10

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 86.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:55	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:55	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:55	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:55	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:55	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:55	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 05:55	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	55		49 - 129	07/01/21 17:33	07/02/21 05:55	20
DCB Decachlorobiphenyl	74		37 - 121	07/01/21 17:33	07/02/21 05:55	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-029-2

Lab Sample ID: 500-201737-13

Date Collected: 07/01/21 13:20

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 06:10	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 06:10	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 06:10	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 06:10	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 06:10	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 06:10	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/01/21 17:33	07/02/21 06:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	55		49 - 129	07/01/21 17:33	07/02/21 06:10	20
DCB Decachlorobiphenyl	73		37 - 121	07/01/21 17:33	07/02/21 06:10	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW003N-2

Lab Sample ID: 500-201737-14

Date Collected: 07/01/21 11:41

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 89.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:26	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:26	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:26	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:26	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:26	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:26	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	07/01/21 17:33	07/02/21 06:26	20
DCB Decachlorobiphenyl	67		37 - 121	07/01/21 17:33	07/02/21 06:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW005N-2

Lab Sample ID: 500-201737-15

Date Collected: 07/01/21 11:43

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 06:41	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 06:41	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 06:41	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 06:41	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 06:41	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 06:41	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/01/21 17:33	07/02/21 06:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	07/01/21 17:33	07/02/21 06:41	20
DCB Decachlorobiphenyl	101		37 - 121	07/01/21 17:33	07/02/21 06:41	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW007N-1

Lab Sample ID: 500-201737-16

Date Collected: 07/01/21 11:46

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 88.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:56	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:56	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:56	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:56	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:56	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:56	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 06:56	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/01/21 17:33	07/02/21 06:56	20
DCB Decachlorobiphenyl	88		37 - 121	07/01/21 17:33	07/02/21 06:56	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW009N-1

Lab Sample ID: 500-201737-17

Date Collected: 07/01/21 11:55

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 88.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 07:12	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 07:12	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 07:12	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 07:12	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 07:12	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 07:12	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/01/21 17:33	07/02/21 07:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/01/21 17:33	07/02/21 07:12	20
DCB Decachlorobiphenyl	98		37 - 121	07/01/21 17:33	07/02/21 07:12	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW010S-1

Lab Sample ID: 500-201737-18

Date Collected: 07/01/21 11:57

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 81.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 07:27	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 07:27	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 07:27	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 07:27	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 07:27	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 07:27	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 07:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/01/21 17:33	07/02/21 07:27	20
DCB Decachlorobiphenyl	91		37 - 121	07/01/21 17:33	07/02/21 07:27	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW011N-1

Lab Sample ID: 500-201737-19

Date Collected: 07/01/21 11:59

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 89.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 07:43	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 07:43	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 07:43	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 07:43	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 07:43	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 07:43	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/01/21 17:33	07/02/21 07:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/01/21 17:33	07/02/21 07:43	20
DCB Decachlorobiphenyl	90		37 - 121	07/01/21 17:33	07/02/21 07:43	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW013N-1

Lab Sample ID: 500-201737-20

Date Collected: 07/01/21 12:10

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 82.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 09:46	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 09:46	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 09:46	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 09:46	20
PCB-1248	1.1		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 09:46	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 09:46	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/01/21 17:33	07/02/21 09:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/01/21 17:33	07/02/21 09:46	20
DCB Decachlorobiphenyl	43		37 - 121	07/01/21 17:33	07/02/21 09:46	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

GC Semi VOA

Prep Batch: 607321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-1	ED-R1SD-009-2	Total/NA	Solid	3541	
500-201737-2	ED-R1SD-010-2	Total/NA	Solid	3541	
500-201737-3	ED-R1SD-011-2	Total/NA	Solid	3541	
500-201737-4	ED-R1SD-012-2	Total/NA	Solid	3541	
500-201737-5	ED-R1SD-014-2	Total/NA	Solid	3541	
500-201737-6	ED-R1SD-015-2	Total/NA	Solid	3541	
500-201737-7	ED-R1SD-017-2	Total/NA	Solid	3541	
500-201737-8	ED-R1SD-018-2	Total/NA	Solid	3541	
500-201737-9	ED-R1SD-020-2	Total/NA	Solid	3541	
500-201737-10	ED-R1SD-021-2	Total/NA	Solid	3541	
500-201737-11	ED-R1SD-022-2	Total/NA	Solid	3541	
500-201737-12	ED-R1SD-024-2	Total/NA	Solid	3541	
500-201737-13	ED-R1SD-029-2	Total/NA	Solid	3541	
500-201737-14	ED-R1SD-SW003N-2	Total/NA	Solid	3541	
500-201737-15	ED-R1SD-SW005N-2	Total/NA	Solid	3541	
500-201737-16	ED-R1SD-SW007N-1	Total/NA	Solid	3541	
500-201737-17	ED-R1SD-SW009N-1	Total/NA	Solid	3541	
500-201737-18	ED-R1SD-SW010S-1	Total/NA	Solid	3541	
500-201737-19	ED-R1SD-SW011N-1	Total/NA	Solid	3541	
500-201737-20	ED-R1SD-SW013N-1	Total/NA	Solid	3541	
MB 500-607321/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-607321/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201737-10 MS	ED-R1SD-021-2	Total/NA	Solid	3541	
500-201737-10 MSD	ED-R1SD-021-2	Total/NA	Solid	3541	

Analysis Batch: 607368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-1	ED-R1SD-009-2	Total/NA	Solid	8082A	607321
500-201737-2	ED-R1SD-010-2	Total/NA	Solid	8082A	607321
500-201737-3	ED-R1SD-011-2	Total/NA	Solid	8082A	607321
500-201737-4	ED-R1SD-012-2	Total/NA	Solid	8082A	607321
500-201737-5	ED-R1SD-014-2	Total/NA	Solid	8082A	607321
500-201737-6	ED-R1SD-015-2	Total/NA	Solid	8082A	607321
500-201737-7	ED-R1SD-017-2	Total/NA	Solid	8082A	607321
500-201737-8	ED-R1SD-018-2	Total/NA	Solid	8082A	607321
500-201737-9	ED-R1SD-020-2	Total/NA	Solid	8082A	607321
500-201737-10	ED-R1SD-021-2	Total/NA	Solid	8082A	607321
500-201737-11	ED-R1SD-022-2	Total/NA	Solid	8082A	607321
500-201737-12	ED-R1SD-024-2	Total/NA	Solid	8082A	607321
500-201737-13	ED-R1SD-029-2	Total/NA	Solid	8082A	607321
500-201737-14	ED-R1SD-SW003N-2	Total/NA	Solid	8082A	607321
500-201737-15	ED-R1SD-SW005N-2	Total/NA	Solid	8082A	607321
500-201737-16	ED-R1SD-SW007N-1	Total/NA	Solid	8082A	607321
500-201737-17	ED-R1SD-SW009N-1	Total/NA	Solid	8082A	607321
500-201737-18	ED-R1SD-SW010S-1	Total/NA	Solid	8082A	607321
500-201737-19	ED-R1SD-SW011N-1	Total/NA	Solid	8082A	607321
500-201737-20	ED-R1SD-SW013N-1	Total/NA	Solid	8082A	607321
MB 500-607321/1-A	Method Blank	Total/NA	Solid	8082A	607321
LCS 500-607321/2-A	Lab Control Sample	Total/NA	Solid	8082A	607321
500-201737-10 MS	ED-R1SD-021-2	Total/NA	Solid	8082A	607321
500-201737-10 MSD	ED-R1SD-021-2	Total/NA	Solid	8082A	607321

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

General Chemistry

Analysis Batch: 607303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-1	ED-R1SD-009-2	Total/NA	Solid	Moisture	
500-201737-2	ED-R1SD-010-2	Total/NA	Solid	Moisture	
500-201737-3	ED-R1SD-011-2	Total/NA	Solid	Moisture	
500-201737-4	ED-R1SD-012-2	Total/NA	Solid	Moisture	
500-201737-5	ED-R1SD-014-2	Total/NA	Solid	Moisture	
500-201737-6	ED-R1SD-015-2	Total/NA	Solid	Moisture	
500-201737-7	ED-R1SD-017-2	Total/NA	Solid	Moisture	
500-201737-8	ED-R1SD-018-2	Total/NA	Solid	Moisture	
500-201737-9	ED-R1SD-020-2	Total/NA	Solid	Moisture	
500-201737-10	ED-R1SD-021-2	Total/NA	Solid	Moisture	
500-201737-11	ED-R1SD-022-2	Total/NA	Solid	Moisture	
500-201737-12	ED-R1SD-024-2	Total/NA	Solid	Moisture	
500-201737-13	ED-R1SD-029-2	Total/NA	Solid	Moisture	
500-201737-14	ED-R1SD-SW003N-2	Total/NA	Solid	Moisture	
500-201737-15	ED-R1SD-SW005N-2	Total/NA	Solid	Moisture	
500-201737-16	ED-R1SD-SW007N-1	Total/NA	Solid	Moisture	
500-201737-17	ED-R1SD-SW009N-1	Total/NA	Solid	Moisture	
500-201737-1 DU	ED-R1SD-009-2	Total/NA	Solid	Moisture	

Analysis Batch: 607310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-18	ED-R1SD-SW010S-1	Total/NA	Solid	Moisture	
500-201737-19	ED-R1SD-SW011N-1	Total/NA	Solid	Moisture	
500-201737-20	ED-R1SD-SW013N-1	Total/NA	Solid	Moisture	
500-201737-18 DU	ED-R1SD-SW010S-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201737-1	ED-R1SD-009-2	82	99
500-201737-2	ED-R1SD-010-2	72	85
500-201737-3	ED-R1SD-011-2	69	82
500-201737-4	ED-R1SD-012-2	67	80
500-201737-5	ED-R1SD-014-2	67	87
500-201737-6	ED-R1SD-015-2	89	110
500-201737-7	ED-R1SD-017-2	73	92
500-201737-8	ED-R1SD-018-2	67	84
500-201737-9	ED-R1SD-020-2	63	81
500-201737-10	ED-R1SD-021-2	60	84
500-201737-10 MS	ED-R1SD-021-2	77	98
500-201737-10 MSD	ED-R1SD-021-2	65	83
500-201737-11	ED-R1SD-022-2	62	86
500-201737-12	ED-R1SD-024-2	55	74
500-201737-13	ED-R1SD-029-2	55	73
500-201737-14	ED-R1SD-SW003N-2	56	67
500-201737-15	ED-R1SD-SW005N-2	83	101
500-201737-16	ED-R1SD-SW007N-1	67	88
500-201737-17	ED-R1SD-SW009N-1	74	98
500-201737-18	ED-R1SD-SW010S-1	72	91
500-201737-19	ED-R1SD-SW011N-1	74	90
500-201737-20	ED-R1SD-SW013N-1	75	43
LCS 500-607321/2-A	Lab Control Sample	74	84
MB 500-607321/1-A	Method Blank	73	87

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-607321/1-A
Matrix: Solid
Analysis Batch: 607368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607321

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/01/21 17:33	07/02/21 02:04		20	
PCB-1221	<0.33		0.33		mg/Kg		07/01/21 17:33	07/02/21 02:04		20	
PCB-1232	<0.33		0.33		mg/Kg		07/01/21 17:33	07/02/21 02:04		20	
PCB-1242	<0.33		0.33		mg/Kg		07/01/21 17:33	07/02/21 02:04		20	
PCB-1248	<0.33		0.33		mg/Kg		07/01/21 17:33	07/02/21 02:04		20	
PCB-1254	<0.33		0.33		mg/Kg		07/01/21 17:33	07/02/21 02:04		20	
PCB-1260	<0.33		0.33		mg/Kg		07/01/21 17:33	07/02/21 02:04		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	73		49 - 129	07/01/21 17:33	07/02/21 02:04		20	
DCB Decachlorobiphenyl	87		37 - 121	07/01/21 17:33	07/02/21 02:04		20	

Lab Sample ID: LCS 500-607321/2-A
Matrix: Solid
Analysis Batch: 607368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607321

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
PCB-1016	1.67	1.32		mg/Kg		79	57 - 120	
PCB-1260	1.67	1.40		mg/Kg		84	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	74		49 - 129
DCB Decachlorobiphenyl	84		37 - 121

Lab Sample ID: 500-201737-10 MS
Matrix: Solid
Analysis Batch: 607368

Client Sample ID: ED-R1SD-021-2
Prep Type: Total/NA
Prep Batch: 607321

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	
PCB-1016	3.8	F1	2.01	7.38	E F1	mg/Kg	☼	181	57 - 120	
PCB-1260	<0.40		2.01	1.88		mg/Kg	☼	94	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	77		49 - 129
DCB Decachlorobiphenyl	98		37 - 121

Lab Sample ID: 500-201737-10 MSD
Matrix: Solid
Analysis Batch: 607368

Client Sample ID: ED-R1SD-021-2
Prep Type: Total/NA
Prep Batch: 607321

Analyte	Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec.		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
PCB-1016	3.8	F1	2.00	5.96		mg/Kg	☼	110	57 - 120	21	30	
PCB-1260	<0.40		2.00	1.58		mg/Kg	☼	79	61 - 125	17	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	65		49 - 129
DCB Decachlorobiphenyl	83		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-009-2

Date Collected: 07/01/21 10:00

Date Received: 07/01/21 16:00

Lab Sample ID: 500-201737-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-009-2

Date Collected: 07/01/21 10:00

Date Received: 07/01/21 16:00

Lab Sample ID: 500-201737-1

Matrix: Solid

Percent Solids: 81.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 02:35	SS	TAL CHI

Client Sample ID: ED-R1SD-010-2

Date Collected: 07/01/21 10:10

Date Received: 07/01/21 16:00

Lab Sample ID: 500-201737-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-010-2

Date Collected: 07/01/21 10:10

Date Received: 07/01/21 16:00

Lab Sample ID: 500-201737-2

Matrix: Solid

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 02:50	SS	TAL CHI

Client Sample ID: ED-R1SD-011-2

Date Collected: 07/01/21 10:20

Date Received: 07/01/21 16:00

Lab Sample ID: 500-201737-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-011-2

Date Collected: 07/01/21 10:20

Date Received: 07/01/21 16:00

Lab Sample ID: 500-201737-3

Matrix: Solid

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 03:05	SS	TAL CHI

Client Sample ID: ED-R1SD-012-2

Date Collected: 07/01/21 10:30

Date Received: 07/01/21 16:00

Lab Sample ID: 500-201737-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-012-2

Lab Sample ID: 500-201737-4

Date Collected: 07/01/21 10:30

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 03:21	SS	TAL CHI

Client Sample ID: ED-R1SD-014-2

Lab Sample ID: 500-201737-5

Date Collected: 07/01/21 10:40

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-014-2

Lab Sample ID: 500-201737-5

Date Collected: 07/01/21 10:40

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 03:36	SS	TAL CHI

Client Sample ID: ED-R1SD-015-2

Lab Sample ID: 500-201737-6

Date Collected: 07/01/21 11:00

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-015-2

Lab Sample ID: 500-201737-6

Date Collected: 07/01/21 11:00

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 03:52	SS	TAL CHI

Client Sample ID: ED-R1SD-017-2

Lab Sample ID: 500-201737-7

Date Collected: 07/01/21 11:15

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-017-2

Lab Sample ID: 500-201737-7

Date Collected: 07/01/21 11:15

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 04:07	SS	TAL CHI

Client Sample ID: ED-R1SD-018-2

Lab Sample ID: 500-201737-8

Date Collected: 07/01/21 11:20

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-018-2

Lab Sample ID: 500-201737-8

Date Collected: 07/01/21 11:20

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 04:22	SS	TAL CHI

Client Sample ID: ED-R1SD-020-2

Lab Sample ID: 500-201737-9

Date Collected: 07/01/21 11:30

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-020-2

Lab Sample ID: 500-201737-9

Date Collected: 07/01/21 11:30

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 04:38	SS	TAL CHI

Client Sample ID: ED-R1SD-021-2

Lab Sample ID: 500-201737-10

Date Collected: 07/01/21 12:50

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-021-2

Lab Sample ID: 500-201737-10

Date Collected: 07/01/21 12:50

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 04:53	SS	TAL CHI

Client Sample ID: ED-R1SD-022-2

Lab Sample ID: 500-201737-11

Date Collected: 07/01/21 13:00

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-022-2

Lab Sample ID: 500-201737-11

Date Collected: 07/01/21 13:00

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 05:39	SS	TAL CHI

Client Sample ID: ED-R1SD-024-2

Lab Sample ID: 500-201737-12

Date Collected: 07/01/21 13:10

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-024-2

Lab Sample ID: 500-201737-12

Date Collected: 07/01/21 13:10

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 05:55	SS	TAL CHI

Client Sample ID: ED-R1SD-029-2

Lab Sample ID: 500-201737-13

Date Collected: 07/01/21 13:20

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-029-2

Lab Sample ID: 500-201737-13

Date Collected: 07/01/21 13:20

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 06:10	SS	TAL CHI

Client Sample ID: ED-R1SD-SW003N-2

Lab Sample ID: 500-201737-14

Date Collected: 07/01/21 11:41

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW003N-2

Lab Sample ID: 500-201737-14

Date Collected: 07/01/21 11:41

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 06:26	SS	TAL CHI

Client Sample ID: ED-R1SD-SW005N-2

Lab Sample ID: 500-201737-15

Date Collected: 07/01/21 11:43

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW005N-2

Lab Sample ID: 500-201737-15

Date Collected: 07/01/21 11:43

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 06:41	SS	TAL CHI

Client Sample ID: ED-R1SD-SW007N-1

Lab Sample ID: 500-201737-16

Date Collected: 07/01/21 11:46

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW007N-1

Lab Sample ID: 500-201737-16

Date Collected: 07/01/21 11:46

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 06:56	SS	TAL CHI

Client Sample ID: ED-R1SD-SW009N-1

Lab Sample ID: 500-201737-17

Date Collected: 07/01/21 11:55

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607303	07/01/21 17:06	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW009N-1

Lab Sample ID: 500-201737-17

Date Collected: 07/01/21 11:55

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 07:12	SS	TAL CHI

Client Sample ID: ED-R1SD-SW010S-1

Lab Sample ID: 500-201737-18

Date Collected: 07/01/21 11:57

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW010S-1

Lab Sample ID: 500-201737-18

Date Collected: 07/01/21 11:57

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 07:27	SS	TAL CHI

Client Sample ID: ED-R1SD-SW011N-1

Lab Sample ID: 500-201737-19

Date Collected: 07/01/21 11:59

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Client Sample ID: ED-R1SD-SW011N-1

Lab Sample ID: 500-201737-19

Date Collected: 07/01/21 11:59

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 07:43	SS	TAL CHI

Client Sample ID: ED-R1SD-SW013N-1

Lab Sample ID: 500-201737-20

Date Collected: 07/01/21 12:10

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW013N-1

Lab Sample ID: 500-201737-20

Date Collected: 07/01/21 12:10

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607321	07/01/21 17:33	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607368	07/02/21 09:46	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4									
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page 4 of 12 2 of 3									
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested											
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested:		Job #: 500-201737 Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:											
City: Knoxville		TAT Requested (days): RUSH 24HR		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No													
State, Zip: TN, 37920		PO #:		Purchase Order not required													
Phone: 865-340-4914(Tel)		WD #:															
Email: jrnickfordobrien@cecinc.com		Project #:		50019033													
Project Name: Arconic PCB Rush Project - Lafayette, IN		SSOW#:				Total Number of containers											
Site:																	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8082A - PCBs		Special Instructions/Note:	
										<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-024-2		7/1/21		1310		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-024-2		7/1/21		1320		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW003W-2		7/1/21		1141		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW005N-1		7/1/21		1143		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW007W-1		7/1/21		1146		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW009N-1		7/1/21		1155		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW010S-1		7/1/21		1157		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW011N-1		7/1/21		1159		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW013N-1		7/1/21		1210		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW014S-1		7/1/21		1216		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
ED-RISD-SW015N-1		7/1/21		1218		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)											
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements											
Empty Kit Relinquished by			Date			Time			Method of Shipment:								
Relinquished by: <i>J. J. ...</i>			Date/Time: 7/1/21 1440			Company: CEC			Received by: <i>P. Seal</i>								
Relinquished by: <i>P. Seal</i>			Date/Time: 7/1/21 1600			Company: ECA			Received by: <i>Shirley Smith</i>								
Relinquished by:			Date/Time:			Company:			Received by:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks.		Page 42 of 45		7/8/2021 (Rev. 1)		Ver. 11/01/2020							

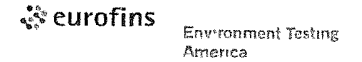
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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Client Information		Sampler: <i>ISSORO ENV 3150</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4	
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: 4042 <i>3064</i>	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No)		Perform IMS/MSD (Yes or No)		Total Number of containers	
City: Knoxville		TAT Requested (days): <i>RUSH 24HR</i>							
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required							
Email: jrckfordobrien@cecinc.com		WO #:							
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		8082A - PCBs				Preservation Codes: A - HCL, M - Hexane B - NaOH, N - None C - Zn Acetate, O - AsNaO2 D - Nitric Acid, P - Na2O4S E - NaHSO4, Q - Na2SO3 F - MeOH, R - Na2S2O3 G - Amchlor, S - H2SO4 H - Ascorbic Acid, T - TSP Dodecahydrate I - Ice, U - Acetone J - DI Water, V - MCAA K - EDTA, W - pH 4-5 L - EDA, Z - other (specify)	
Site:		SSOW#:							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform IMS/MSD (Yes or No)	Total Number of containers	Special Instructions/Note:
				Preservation Code.		X	X	N	
<i>23</i>	<i>ED-RISD-SW009N-1</i>	<i>7/1/21</i>	<i>1230</i>	<i>C</i>	<i>S</i>				
<i>24</i>	<i>ED-RISD-SW020S-1</i>	<i>7/1/21</i>	<i>1235</i>	<i>C</i>	<i>S</i>				
<i>25</i>	<i>ED-RISD-SW072S</i>	<i>6/30/21</i>	<i>1120</i>	<i>C</i>	<i>S</i>				
<i>26</i>	<i>ED-RISD-SW073W</i>	<i>6/30/21</i>	<i>1122</i>	<i>C</i>	<i>S</i>				
<i>27</i>	<i>ED-RISD-SW074S</i>	<i>6/30/21</i>	<i>1135</i>	<i>C</i>	<i>S</i>				
<i>28</i>	<i>ED-RISD-SW075W</i>	<i>6/30/21</i>	<i>1137</i>	<i>C</i>	<i>S</i>				
<i>29</i>	<i>ED-RISD-SW076S</i>	<i>6/30/21</i>	<i>1145</i>	<i>C</i>	<i>S</i>				
<i>30</i>	<i>ED-RISD-SW077W</i>	<i>6/30/21</i>	<i>1147</i>	<i>C</i>	<i>S</i>				
<i>31</i>	<i>ED-RISD-SW078S</i>	<i>6/30/21</i>	<i>1200</i>	<i>C</i>	<i>S</i>				
<i>32</i>	<i>ED-RISD-SW079W</i>	<i>6/30/21</i>	<i>1202</i>	<i>C</i>	<i>S</i>				
<i>33</i>	<i>ED-RISD-SW080S</i>	<i>6/30/21</i>	<i>1210</i>	<i>C</i>	<i>S</i>				
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested <input checked="" type="checkbox"/> I, <input type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:		
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1440</i>		Company: <i>LEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1440</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1600</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1600</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks:			7/8/2021 (Rev. 1)	

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201737-1

Login Number: 201737

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

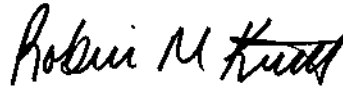
Laboratory Job ID: 500-201737-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/6/2021 11:45:47 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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QC Sample Results	27
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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Job ID: 500-201737-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201737-2

Comments

No additional comments.

Receipt

The samples were received on 7/1/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5° C.

GC Semi VOA

Method 8082A: The following samples were reported from the primary column due to DCB Decachlorobiphenyl, PCB-1016 and PCB-1260 recovering outside control limits for the continuing calibration verification (CCVIS) on the secondary column; therefore, the higher of the two results have been reported. ED-R1SD-SW015N-1 (500-201737-22), ED-R1SD-SW073N (500-201737-26), ED-R1SD-SW078S (500-201737-31) and (CCVIS 500-607657/3)

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW015N-1 (500-201737-22) and ED-R1SD-SW078S (500-201737-31).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1016: ED-R1SD-SW073N (500-201737-26) and ED-R1SD-SW080S (500-201737-33).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW019N-1 (500-201737-23), ED-R1SD-SW074S (500-201737-27) and ED-R1SD-SW081N (500-201737-34). The reagent lot number used was: Z07G073.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1232: ED-R1SD-SW074S (500-201737-27) and ED-R1SD-SW081N (500-201737-34).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW014S-1

Lab Sample ID: 500-201737-21

No Detections.

Client Sample ID: ED-R1SD-SW015N-1

Lab Sample ID: 500-201737-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.1		0.41		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-SW019N-1

Lab Sample ID: 500-201737-23

No Detections.

Client Sample ID: ED-R1SD-SW020S-1

Lab Sample ID: 500-201737-24

No Detections.

Client Sample ID: ED-R1SD-SW072S

Lab Sample ID: 500-201737-25

No Detections.

Client Sample ID: ED-R1SD-SW073N

Lab Sample ID: 500-201737-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	1.3		0.40		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-SW074S

Lab Sample ID: 500-201737-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.5		0.39		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-SW075N

Lab Sample ID: 500-201737-28

No Detections.

Client Sample ID: ED-R1SD-SW076S

Lab Sample ID: 500-201737-29

No Detections.

Client Sample ID: ED-R1SD-SW077N

Lab Sample ID: 500-201737-30

No Detections.

Client Sample ID: ED-R1SD-SW078S

Lab Sample ID: 500-201737-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.72		0.43		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-SW079N

Lab Sample ID: 500-201737-32

No Detections.

Client Sample ID: ED-R1SD-SW080S

Lab Sample ID: 500-201737-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	0.53		0.38		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-SW081N

Lab Sample ID: 500-201737-34

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	1.0		0.38		mg/Kg	20	⊛	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-DUP7

Lab Sample ID: 500-201737-35

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201737-21	ED-R1SD-SW014S-1	Solid	07/01/21 12:16	07/01/21 16:00	
500-201737-22	ED-R1SD-SW015N-1	Solid	07/01/21 12:18	07/01/21 16:00	
500-201737-23	ED-R1SD-SW019N-1	Solid	07/01/21 12:30	07/01/21 16:00	
500-201737-24	ED-R1SD-SW020S-1	Solid	07/01/21 12:35	07/01/21 16:00	
500-201737-25	ED-R1SD-SW072S	Solid	06/30/21 11:20	07/01/21 16:00	
500-201737-26	ED-R1SD-SW073N	Solid	06/30/21 11:22	07/01/21 16:00	
500-201737-27	ED-R1SD-SW074S	Solid	06/30/21 11:35	07/01/21 16:00	
500-201737-28	ED-R1SD-SW075N	Solid	06/30/21 11:37	07/01/21 16:00	
500-201737-29	ED-R1SD-SW076S	Solid	06/30/21 11:45	07/01/21 16:00	
500-201737-30	ED-R1SD-SW077N	Solid	06/30/21 11:47	07/01/21 16:00	
500-201737-31	ED-R1SD-SW078S	Solid	06/30/21 12:00	07/01/21 16:00	
500-201737-32	ED-R1SD-SW079N	Solid	06/30/21 12:02	07/01/21 16:00	
500-201737-33	ED-R1SD-SW080S	Solid	06/30/21 12:10	07/01/21 16:00	
500-201737-34	ED-R1SD-SW081N	Solid	06/30/21 12:12	07/01/21 16:00	
500-201737-35	ED-R1SD-DUP7	Solid	07/01/21 11:30	07/01/21 16:00	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW014S-1

Lab Sample ID: 500-201737-21

Date Collected: 07/01/21 12:16

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 87.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 04:07	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 04:07	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 04:07	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 04:07	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 04:07	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 04:07	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 04:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	07/02/21 18:40	07/03/21 04:07	20
DCB Decachlorobiphenyl	94		37 - 121	07/02/21 18:40	07/03/21 04:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW015N-1

Lab Sample ID: 500-201737-22

Date Collected: 07/01/21 12:18

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 79.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/02/21 18:40	07/03/21 04:53	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/02/21 18:40	07/03/21 04:53	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/02/21 18:40	07/03/21 04:53	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/02/21 18:40	07/03/21 04:53	20
PCB-1248	2.1		0.41		mg/Kg	☼	07/02/21 18:40	07/03/21 04:53	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/02/21 18:40	07/03/21 04:53	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/02/21 18:40	07/03/21 04:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	07/02/21 18:40	07/03/21 04:53	20
DCB Decachlorobiphenyl	59		37 - 121	07/02/21 18:40	07/03/21 04:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW019N-1

Lab Sample ID: 500-201737-23

Date Collected: 07/01/21 12:30

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 75.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/02/21 18:40	07/06/21 09:31	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/02/21 18:40	07/06/21 09:31	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/02/21 18:40	07/06/21 09:31	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/02/21 18:40	07/06/21 09:31	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/02/21 18:40	07/06/21 09:31	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/02/21 18:40	07/06/21 09:31	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/02/21 18:40	07/06/21 09:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/02/21 18:40	07/06/21 09:31	20
DCB Decachlorobiphenyl	39		37 - 121	07/02/21 18:40	07/06/21 09:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW020S-1

Lab Sample ID: 500-201737-24

Date Collected: 07/01/21 12:35

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 88.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 05:24	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 05:24	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 05:24	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 05:24	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 05:24	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 05:24	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 05:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	116		49 - 129	07/02/21 18:40	07/03/21 05:24	20
DCB Decachlorobiphenyl	111		37 - 121	07/02/21 18:40	07/03/21 05:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW072S

Lab Sample ID: 500-201737-25

Date Collected: 06/30/21 11:20

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 05:39	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 05:39	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 05:39	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 05:39	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 05:39	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 05:39	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 05:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/02/21 18:40	07/03/21 05:39	20
DCB Decachlorobiphenyl	77		37 - 121	07/02/21 18:40	07/03/21 05:39	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW073N

Lab Sample ID: 500-201737-26

Date Collected: 06/30/21 11:22

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 81.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.3		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 05:55	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 05:55	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 05:55	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 05:55	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 05:55	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 05:55	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 05:55	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	62		49 - 129	07/02/21 18:40	07/03/21 05:55	20
<i>DCB Decachlorobiphenyl</i>	74		37 - 121	07/02/21 18:40	07/03/21 05:55	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW074S

Lab Sample ID: 500-201737-27

Date Collected: 06/30/21 11:35

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 82.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/06/21 09:46	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/06/21 09:46	20
PCB-1232	3.5		0.39		mg/Kg	☼	07/02/21 18:40	07/06/21 09:46	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/06/21 09:46	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/06/21 09:46	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/06/21 09:46	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/06/21 09:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	07/02/21 18:40	07/06/21 09:46	20
DCB Decachlorobiphenyl	53		37 - 121	07/02/21 18:40	07/06/21 09:46	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW075N

Lab Sample ID: 500-201737-28

Date Collected: 06/30/21 11:37

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 06:26	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 06:26	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 06:26	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 06:26	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 06:26	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 06:26	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 06:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	07/02/21 18:40	07/03/21 06:26	20
DCB Decachlorobiphenyl	68		37 - 121	07/02/21 18:40	07/03/21 06:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW076S

Lab Sample ID: 500-201737-29

Date Collected: 06/30/21 11:45

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 77.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 06:41	20
PCB-1221	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 06:41	20
PCB-1232	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 06:41	20
PCB-1242	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 06:41	20
PCB-1248	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 06:41	20
PCB-1254	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 06:41	20
PCB-1260	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 06:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		49 - 129	07/02/21 18:40	07/03/21 06:41	20
DCB Decachlorobiphenyl	96		37 - 121	07/02/21 18:40	07/03/21 06:41	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW077N

Lab Sample ID: 500-201737-30

Date Collected: 06/30/21 11:47

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 06:57	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 06:57	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 06:57	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 06:57	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 06:57	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 06:57	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/02/21 18:40	07/03/21 06:57	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/02/21 18:40	07/03/21 06:57	20
DCB Decachlorobiphenyl	85		37 - 121	07/02/21 18:40	07/03/21 06:57	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW078S

Lab Sample ID: 500-201737-31

Date Collected: 06/30/21 12:00

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 74.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 07:12	20
PCB-1221	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 07:12	20
PCB-1232	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 07:12	20
PCB-1242	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 07:12	20
PCB-1248	0.72		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 07:12	20
PCB-1254	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 07:12	20
PCB-1260	<0.43		0.43		mg/Kg	☼	07/02/21 18:40	07/03/21 07:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	07/02/21 18:40	07/03/21 07:12	20
DCB Decachlorobiphenyl	67		37 - 121	07/02/21 18:40	07/03/21 07:12	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW079N

Lab Sample ID: 500-201737-32

Date Collected: 06/30/21 12:02

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 84.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:27	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:27	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:27	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:27	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:27	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:27	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/02/21 18:40	07/03/21 07:27	20
DCB Decachlorobiphenyl	78		37 - 121	07/02/21 18:40	07/03/21 07:27	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW080S

Lab Sample ID: 500-201737-33

Date Collected: 06/30/21 12:10

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.53		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:43	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:43	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:43	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:43	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:43	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:43	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 07:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/02/21 18:40	07/03/21 07:43	20
DCB Decachlorobiphenyl	88		37 - 121	07/02/21 18:40	07/03/21 07:43	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW081N

Lab Sample ID: 500-201737-34

Date Collected: 06/30/21 12:12

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 83.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/06/21 10:02	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/06/21 10:02	20
PCB-1232	1.0		0.38		mg/Kg	☼	07/02/21 18:40	07/06/21 10:02	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/06/21 10:02	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/06/21 10:02	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/06/21 10:02	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/06/21 10:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/02/21 18:40	07/06/21 10:02	20
DCB Decachlorobiphenyl	67		37 - 121	07/02/21 18:40	07/06/21 10:02	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-DUP7

Lab Sample ID: 500-201737-35

Date Collected: 07/01/21 11:30

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 08:14	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 08:14	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 08:14	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 08:14	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 08:14	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 08:14	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/02/21 18:40	07/03/21 08:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	07/02/21 18:40	07/03/21 08:14	20
DCB Decachlorobiphenyl	87		37 - 121	07/02/21 18:40	07/03/21 08:14	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

GC Semi VOA

Prep Batch: 607627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-21	ED-R1SD-SW014S-1	Total/NA	Solid	3541	
500-201737-22	ED-R1SD-SW015N-1	Total/NA	Solid	3541	
500-201737-23	ED-R1SD-SW019N-1	Total/NA	Solid	3541	
500-201737-24	ED-R1SD-SW020S-1	Total/NA	Solid	3541	
500-201737-25	ED-R1SD-SW072S	Total/NA	Solid	3541	
500-201737-26	ED-R1SD-SW073N	Total/NA	Solid	3541	
500-201737-27	ED-R1SD-SW074S	Total/NA	Solid	3541	
500-201737-28	ED-R1SD-SW075N	Total/NA	Solid	3541	
500-201737-29	ED-R1SD-SW076S	Total/NA	Solid	3541	
500-201737-30	ED-R1SD-SW077N	Total/NA	Solid	3541	
500-201737-31	ED-R1SD-SW078S	Total/NA	Solid	3541	
500-201737-32	ED-R1SD-SW079N	Total/NA	Solid	3541	
500-201737-33	ED-R1SD-SW080S	Total/NA	Solid	3541	
500-201737-34	ED-R1SD-SW081N	Total/NA	Solid	3541	
500-201737-35	ED-R1SD-DUP7	Total/NA	Solid	3541	
MB 500-607627/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-607627/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201737-21 MS	ED-R1SD-SW014S-1	Total/NA	Solid	3541	
500-201737-21 MSD	ED-R1SD-SW014S-1	Total/NA	Solid	3541	

Analysis Batch: 607657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-21	ED-R1SD-SW014S-1	Total/NA	Solid	8082A	607627
500-201737-22	ED-R1SD-SW015N-1	Total/NA	Solid	8082A	607627
500-201737-24	ED-R1SD-SW020S-1	Total/NA	Solid	8082A	607627
500-201737-25	ED-R1SD-SW072S	Total/NA	Solid	8082A	607627
500-201737-26	ED-R1SD-SW073N	Total/NA	Solid	8082A	607627
500-201737-28	ED-R1SD-SW075N	Total/NA	Solid	8082A	607627
500-201737-29	ED-R1SD-SW076S	Total/NA	Solid	8082A	607627
500-201737-30	ED-R1SD-SW077N	Total/NA	Solid	8082A	607627
500-201737-31	ED-R1SD-SW078S	Total/NA	Solid	8082A	607627
500-201737-32	ED-R1SD-SW079N	Total/NA	Solid	8082A	607627
500-201737-33	ED-R1SD-SW080S	Total/NA	Solid	8082A	607627
500-201737-35	ED-R1SD-DUP7	Total/NA	Solid	8082A	607627
MB 500-607627/1-A	Method Blank	Total/NA	Solid	8082A	607627
LCS 500-607627/2-A	Lab Control Sample	Total/NA	Solid	8082A	607627
500-201737-21 MS	ED-R1SD-SW014S-1	Total/NA	Solid	8082A	607627
500-201737-21 MSD	ED-R1SD-SW014S-1	Total/NA	Solid	8082A	607627

Analysis Batch: 607767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-23	ED-R1SD-SW019N-1	Total/NA	Solid	8082A	607627
500-201737-27	ED-R1SD-SW074S	Total/NA	Solid	8082A	607627
500-201737-34	ED-R1SD-SW081N	Total/NA	Solid	8082A	607627

General Chemistry

Analysis Batch: 607310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-21	ED-R1SD-SW014S-1	Total/NA	Solid	Moisture	
500-201737-22	ED-R1SD-SW015N-1	Total/NA	Solid	Moisture	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

General Chemistry (Continued)

Analysis Batch: 607310 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-23	ED-R1SD-SW019N-1	Total/NA	Solid	Moisture	
500-201737-24	ED-R1SD-SW020S-1	Total/NA	Solid	Moisture	
500-201737-25	ED-R1SD-SW072S	Total/NA	Solid	Moisture	
500-201737-26	ED-R1SD-SW073N	Total/NA	Solid	Moisture	
500-201737-27	ED-R1SD-SW074S	Total/NA	Solid	Moisture	
500-201737-28	ED-R1SD-SW075N	Total/NA	Solid	Moisture	
500-201737-29	ED-R1SD-SW076S	Total/NA	Solid	Moisture	
500-201737-30	ED-R1SD-SW077N	Total/NA	Solid	Moisture	
500-201737-31	ED-R1SD-SW078S	Total/NA	Solid	Moisture	
500-201737-32	ED-R1SD-SW079N	Total/NA	Solid	Moisture	
500-201737-33	ED-R1SD-SW080S	Total/NA	Solid	Moisture	
500-201737-34	ED-R1SD-SW081N	Total/NA	Solid	Moisture	
500-201737-35	ED-R1SD-DUP7	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX2 (49-129)	DCBP2 (37-121)
500-201737-21	ED-R1SD-SW014S-1	80	94
500-201737-21 MS	ED-R1SD-SW014S-1	64	59
500-201737-21 MSD	ED-R1SD-SW014S-1	62	68
500-201737-22	ED-R1SD-SW015N-1	61	59
500-201737-24	ED-R1SD-SW020S-1	116	111
500-201737-25	ED-R1SD-SW072S	74	77
500-201737-26	ED-R1SD-SW073N	62	74
500-201737-28	ED-R1SD-SW075N	62	68
500-201737-29	ED-R1SD-SW076S	88	96
500-201737-30	ED-R1SD-SW077N	69	85
500-201737-31	ED-R1SD-SW078S	63	67
500-201737-32	ED-R1SD-SW079N	60	78
500-201737-33	ED-R1SD-SW080S	75	88
500-201737-35	ED-R1SD-DUP7	73	87
LCS 500-607627/2-A	Lab Control Sample	84	84
MB 500-607627/1-A	Method Blank	88	90

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (49-129)	DCBP1 (37-121)
500-201737-23	ED-R1SD-SW019N-1	72	39
500-201737-27	ED-R1SD-SW074S	61	53
500-201737-34	ED-R1SD-SW081N	67	67

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-607627/1-A
Matrix: Solid
Analysis Batch: 607657

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607627

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1221	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1232	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1242	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1248	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1254	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1260	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	88		49 - 129	07/02/21 18:40		07/03/21 03:36		20
DCB Decachlorobiphenyl	90		37 - 121	07/02/21 18:40		07/03/21 03:36		20

Lab Sample ID: LCS 500-607627/2-A
Matrix: Solid
Analysis Batch: 607657

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607627

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.40		mg/Kg		84	57 - 120	
PCB-1260	1.67	1.54		mg/Kg		92	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	84		49 - 129
DCB Decachlorobiphenyl	84		37 - 121

Lab Sample ID: 500-201737-21 MS
Matrix: Solid
Analysis Batch: 607657

Client Sample ID: ED-R1SD-SW014S-1
Prep Type: Total/NA
Prep Batch: 607627

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.38		1.85	1.24		mg/Kg	☼	67	57 - 120	
PCB-1260	<0.38		1.85	1.35		mg/Kg	☼	73	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	64		49 - 129
DCB Decachlorobiphenyl	59		37 - 121

Lab Sample ID: 500-201737-21 MSD
Matrix: Solid
Analysis Batch: 607657

Client Sample ID: ED-R1SD-SW014S-1
Prep Type: Total/NA
Prep Batch: 607627

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.38		1.85	1.26		mg/Kg	☼	68	57 - 120	2	30	
PCB-1260	<0.38		1.85	1.41		mg/Kg	☼	76	61 - 125	4	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	62		49 - 129
DCB Decachlorobiphenyl	68		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW014S-1

Lab Sample ID: 500-201737-21

Date Collected: 07/01/21 12:16

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW014S-1

Lab Sample ID: 500-201737-21

Date Collected: 07/01/21 12:16

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 04:07	SS	TAL CHI

Client Sample ID: ED-R1SD-SW015N-1

Lab Sample ID: 500-201737-22

Date Collected: 07/01/21 12:18

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW015N-1

Lab Sample ID: 500-201737-22

Date Collected: 07/01/21 12:18

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 04:53	SS	TAL CHI

Client Sample ID: ED-R1SD-SW019N-1

Lab Sample ID: 500-201737-23

Date Collected: 07/01/21 12:30

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW019N-1

Lab Sample ID: 500-201737-23

Date Collected: 07/01/21 12:30

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 75.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 09:31	JBj	TAL CHI

Client Sample ID: ED-R1SD-SW020S-1

Lab Sample ID: 500-201737-24

Date Collected: 07/01/21 12:35

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW020S-1

Lab Sample ID: 500-201737-24

Date Collected: 07/01/21 12:35

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 05:24	SS	TAL CHI

Client Sample ID: ED-R1SD-SW072S

Lab Sample ID: 500-201737-25

Date Collected: 06/30/21 11:20

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW072S

Lab Sample ID: 500-201737-25

Date Collected: 06/30/21 11:20

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 05:39	SS	TAL CHI

Client Sample ID: ED-R1SD-SW073N

Lab Sample ID: 500-201737-26

Date Collected: 06/30/21 11:22

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW073N

Lab Sample ID: 500-201737-26

Date Collected: 06/30/21 11:22

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 05:55	SS	TAL CHI

Client Sample ID: ED-R1SD-SW074S

Lab Sample ID: 500-201737-27

Date Collected: 06/30/21 11:35

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW074S

Lab Sample ID: 500-201737-27

Date Collected: 06/30/21 11:35

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 09:46	JBj	TAL CHI

Client Sample ID: ED-R1SD-SW075N

Lab Sample ID: 500-201737-28

Date Collected: 06/30/21 11:37

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW075N

Lab Sample ID: 500-201737-28

Date Collected: 06/30/21 11:37

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 06:26	SS	TAL CHI

Client Sample ID: ED-R1SD-SW076S

Lab Sample ID: 500-201737-29

Date Collected: 06/30/21 11:45

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW076S

Lab Sample ID: 500-201737-29

Date Collected: 06/30/21 11:45

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 77.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 06:41	SS	TAL CHI

Client Sample ID: ED-R1SD-SW077N

Lab Sample ID: 500-201737-30

Date Collected: 06/30/21 11:47

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW077N

Lab Sample ID: 500-201737-30

Date Collected: 06/30/21 11:47

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 06:57	SS	TAL CHI

Client Sample ID: ED-R1SD-SW078S

Lab Sample ID: 500-201737-31

Date Collected: 06/30/21 12:00

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW078S

Lab Sample ID: 500-201737-31

Date Collected: 06/30/21 12:00

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 74.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 07:12	SS	TAL CHI

Client Sample ID: ED-R1SD-SW079N

Lab Sample ID: 500-201737-32

Date Collected: 06/30/21 12:02

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW079N

Lab Sample ID: 500-201737-32

Date Collected: 06/30/21 12:02

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 07:27	SS	TAL CHI

Client Sample ID: ED-R1SD-SW080S

Lab Sample ID: 500-201737-33

Date Collected: 06/30/21 12:10

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Client Sample ID: ED-R1SD-SW080S

Lab Sample ID: 500-201737-33

Date Collected: 06/30/21 12:10

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 07:43	SS	TAL CHI

Client Sample ID: ED-R1SD-SW081N

Lab Sample ID: 500-201737-34

Date Collected: 06/30/21 12:12

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW081N

Lab Sample ID: 500-201737-34

Date Collected: 06/30/21 12:12

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 10:02	JBj	TAL CHI

Client Sample ID: ED-R1SD-DUP7

Lab Sample ID: 500-201737-35

Date Collected: 07/01/21 11:30

Matrix: Solid

Date Received: 07/01/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607310	07/01/21 17:26	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP7

Lab Sample ID: 500-201737-35

Date Collected: 07/01/21 11:30

Matrix: Solid

Date Received: 07/01/21 16:00

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 08:14	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler <i>I. JORGENSEN</i>	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4																														
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin	Page: <i>1 of 2</i>																														
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested																																
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State, Zip: TN, 37920		Due Date Requested: TAT Requested (days): <i>RUSH 24HR</i>																																	
Phone: 865-340-4914(Tel)		Compliance Project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<table border="1"> <tr> <td rowspan="10" style="writing-mode: vertical-rl; transform: rotate(180deg);">Total Number of containers</td> <td colspan="2">Preservation Codes</td> </tr> <tr> <td>A HCL</td> <td>M - Hexane</td> </tr> <tr> <td>B NaOH</td> <td>N None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U Acetone</td> </tr> <tr> <td>J DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K EDTA</td> <td>W pH 4-5</td> </tr> <tr> <td>L EDA</td> <td>Z other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> <td></td> </tr> </table>			Total Number of containers	Preservation Codes		A HCL	M - Hexane	B NaOH	N None	C - Zn Acetate	O - AsNaO2	D - Nitric Acid	P Na2O4S	E - NaHSO4	Q - Na2SO3	F - MeOH	R - Na2S2O3	G - Amchlor	S - H2SO4	H - Ascorbic Acid	T - TSP Dodecahydrate	I - Ice	U Acetone	J DI Water	V - MCAA	K EDTA	W pH 4-5	L EDA	Z other (specify)	Other:		
Total Number of containers	Preservation Codes																																		
	A HCL	M - Hexane																																	
	B NaOH	N None																																	
	C - Zn Acetate	O - AsNaO2																																	
	D - Nitric Acid	P Na2O4S																																	
	E - NaHSO4	Q - Na2SO3																																	
	F - MeOH	R - Na2S2O3																																	
	G - Amchlor	S - H2SO4																																	
	H - Ascorbic Acid	T - TSP Dodecahydrate																																	
	I - Ice	U Acetone																																	
J DI Water	V - MCAA																																		
K EDTA	W pH 4-5																																		
L EDA	Z other (specify)																																		
Other:																																			
Email: jrlickfordobrien@cecinc.com		PO #: Purchase Order not required																																	
Project Name: Arconic PCB Rush Project - Lafayette, IN		WO #:																																	
Site:		Project #: 50019033																																	
		SSOW#:																																	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=soil, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Special Instructions/Note																										
									Preservation Code: X X N																										
1	ED-RISD-009-2	7/1/21	1600	C	S	X	X																												
2	ED-RISD-010-2		1616	C	S	X	X																												
3	ED-RISD-011-2		1020	C	S	X	X																												
4	ED-RISD-012-2		1030	C	S	X	X																												
5	ED-RISD-014-2		1046	C	S	X	X																												
6	ED-RISD-015-2		1100	C	S	X	X																												
7	ED-RISD-017-2		1108	C	S	X	X																												
8	ED-RISD-018-2		1126	C	S	X	X																												
9	ED-RISD-020-2		1130	C	S	X	X																												
10	ED-RISD-021-2		1250 1250	C	S	X	X																												
11	ED-RISD-022-2		1300	C	S	X	X																												
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																													
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																													
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements																													
Empty Kit Relinquished by			Date	Time	Method of Shipment:																														
Relinquished by: <i>J.P.O.</i>			Date/Time: 7/1/21 1440	Company: <i>CEC</i>	Received by: <i>P. Venz</i>			Date/Time: 7/1/21 1440	Company: <i>ETA</i>																										
Relinquished by: <i>P. Nard</i>			Date/Time: 7/1/21 1600	Company: <i>ETA</i>	Received by: <i>Shirley Scott</i>			Date/Time: 7/1/21 1600	Company: <i>ETA/CHT</i>																										
Relinquished by:			Date/Time:	Company:	Received by:			Date/Time:	Company:																										
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Custody Seal No			Cooler Temperature(s) °C and Other Remarks: <i>2.9-2.5</i>			7/6/2021																										

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

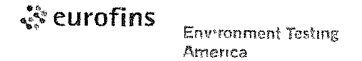
Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4									
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page 4 of 12 2 of 3									
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested											
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested:		Job #: 500-201737 Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:											
City: Knoxville		TAT Requested (days): RUSH 24HR		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No													
State, Zip: TN, 37920		PO #:		Purchase Order not required													
Phone: 865-340-4914(Tel)		WD #:															
Email: jrnickfordobrien@cecinc.com		Project #:		50019033													
Project Name: Arconic PCB Rush Project - Lafayette, IN		SSOW#:				Total Number of containers											
Site:																	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8082A - PCBs		Special Instructions/Note:	
										<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-024-2		7/1/21		1310		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-024-2		7/1/21		1320		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW003W-2		7/1/21		1141		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW005N-1		7/1/21		1143		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW007W-1		7/1/21		1146		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW009N-1		7/1/21		1155		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW010S-1		7/1/21		1157		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW011N-1		7/1/21		1159		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW013N-1		7/1/21		1210		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW014S-1		7/1/21		1216		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW015N-1		7/1/21		1218		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)											
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements											
Empty Kit Relinquished by			Date			Time			Method of Shipment:								
Relinquished by: <i>J. Jorgensen</i>			Date/Time: 7/1/21 1440			Company: CEC			Received by: <i>P. Seal</i>								
Relinquished by: <i>P. Seal</i>			Date/Time: 7/1/21 1600			Company: ECA			Received by: <i>Shirley Smith</i>								
Relinquished by:			Date/Time:			Company:			Received by:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks.													

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

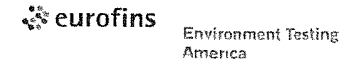


Client Information		Sampler: <i>ISORO EA 350</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4	
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: 4 <i>3 of 4</i>	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform. MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: <i>500-201737</i>	
City: Knoxville		TAT Requested (days): <i>RUSH 24HR</i>						Preservation Codes	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A - HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B - NaOH N - None	
Email: jrnickfordobrien@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P - Na2O4S		E - NaHSO4 Q - Na2SO3		F - MeOH R - Na2S2O3	
Site:		SSOW#:		G - Amchlor S - H2SO4		H - Ascorbic Acid T - TSP Dodecahydrate		I - Ice U - Acetone	
J - DI Water V - MCAA		K - EDTA W - pH 4-5		L - EDA Z - other (specify)		Other:			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code.	
								<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> N	
<i>23 ED-RISD-SW009N-1</i>		<i>7/1/21</i>		<i>1230</i>		<i>C S</i>			
<i>24 ED-RISD-SW020S-1</i>		<i>7/1/21</i>		<i>1235</i>		<i>C S</i>			
<i>25 ED-RISD-SW072S</i>		<i>6/30/21</i>		<i>1120</i>		<i>C S</i>			
<i>26 ED-RISD-SW073W</i>		<i>6/30/21</i>		<i>1122</i>		<i>C S</i>			
<i>27 ED-RISD-SW074S</i>		<i>6/30/21</i>		<i>1135</i>		<i>C S</i>			
<i>28 ED-RISD-SW075W</i>		<i>6/30/21</i>		<i>1137</i>		<i>C S</i>			
<i>29 ED-RISD-SW076S</i>		<i>6/30/21</i>		<i>1145</i>		<i>C S</i>			
<i>30 ED-RISD-SW077W</i>		<i>6/30/21</i>		<i>1147</i>		<i>C S</i>			
<i>31 ED-RISD-SW078S</i>		<i>6/30/21</i>		<i>1200</i>		<i>C S</i>			
<i>32 ED-RISD-SW079W</i>		<i>6/30/21</i>		<i>1202</i>		<i>C S</i>			
<i>33 ED-RISD-SW080S</i>		<i>6/30/21</i>		<i>1210</i>		<i>C S</i>			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested <input checked="" type="checkbox"/> I, <input checked="" type="checkbox"/> III, IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1440</i>		Company: <i>LEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1440</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1600</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1600</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:					

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



Client Information			Sampler: <i>ITORGENEN</i>	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4		
Client Contact: Jenny Rickford O'Brien			Phone: <i>224-250-5434</i>	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin	Page Page 1 of 12 4 of 4		
Company Civil & Environmental Consultants Inc			PWSID:	Analysis Requested				Job #: <i>500-201737</i>
Address: 2704 Cherokee Farm Way Suite 101			Due Date Requested	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of Containers	Preservation Codes A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
City Knoxville			TAT Requested (days): <i>RUSH 24 HR</i>					
State, Zip: TN, 37920			Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: 865-340-4914(Tel)			PO #: Purchase Order not required					
Email: jrickfordobrien@cecinc.com			WO #:					
Project Name: Arconic PCB Rush Project - Lafayette, IN			Project #: 50019033					
Site:			SSOW#:					
Sample Identification			Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Preservation Code:	Special Instructions/Note:
<i>34</i>	<i>EP-RISD-SW081N</i>	<i>6/30/21</i>	<i>1212</i>	<i>G</i>	<i>S</i>	<i>X</i>	<i>N</i>	<i>1</i>
<i>35</i>	<i>EP-RISD-DUP7</i>	<i>7/1/21</i>	<i>1136</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>
<i>36</i>	<i>EP-RISD-EB11</i>	<i>7/1/21</i>	<i>1400</i>	<i>G</i>	<i>W</i>	<i>X</i>		<i>2</i>
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV, Other (specify)			Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date	Time	Method of Shipment:			
Relinquished by: <i>DDA</i>			Date/Time: <i>7/1/21 1440</i>	Company: <i>CEL</i>	Received by: <i>P. Neal</i>	Date/Time: <i>7/1/21 1440</i>	Company: <i>ETA</i>	
Relinquished by: <i>P. Neal</i>			Date/Time: <i>7/1/21 1600</i>	Company: <i>ETA</i>	Received by: <i>Shirley Scott</i>	Date/Time: <i>7/1/21 1600</i>	Company: <i>ETA</i>	
Relinquished by:			Date/Time:	Company:	Received by:	Date/Time:	Company:	
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks.					



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201737-2

Login Number: 201737

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201737-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/9/2021 12:49:32 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Job ID: 500-201737-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201737-3

Comments

No additional comments.

Receipt

The samples were received on 7/1/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5° C.

Receipt Exceptions

The report was revised to change sample ID from ED-R1SD-SW005N-1 to ED-R1SD-SW005N-2 per client request. ED-R1SD-SW005N-2 (500-201737-15)

GC Semi VOA

Method 8082A: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-607649 and analytical batch 500-607853 recovered outside control limits for the following analytes: PCB-1260.

Method 8082A: The laboratory control sample (LCS) for preparation batch 500-607649 and analytical batch 500-607853 recovered outside control limits for the following analytes: PCB-1016 and PCB-1260. These analytes were biased low in the LCS and were not detected in the associated samples. The laboratory control sample duplicate (LCSD) was within limits; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Client Sample ID: ED-R1SD-EB-11

Lab Sample ID: 500-201737-36

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201737-36	ED-R1SD-EB-11	Water	07/01/21 14:00	07/01/21 16:00	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Client Sample ID: ED-R1SD-EB-11

Lab Sample ID: 500-201737-36

Date Collected: 07/01/21 14:00

Matrix: Water

Date Received: 07/01/21 16:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00037	*-	0.00037		mg/L		07/02/21 21:23	07/06/21 11:42	1
PCB-1221	<0.00037		0.00037		mg/L		07/02/21 21:23	07/06/21 11:42	1
PCB-1232	<0.00037		0.00037		mg/L		07/02/21 21:23	07/06/21 11:42	1
PCB-1242	<0.00037		0.00037		mg/L		07/02/21 21:23	07/06/21 11:42	1
PCB-1248	<0.00037		0.00037		mg/L		07/02/21 21:23	07/06/21 11:42	1
PCB-1254	<0.00037		0.00037		mg/L		07/02/21 21:23	07/06/21 11:42	1
PCB-1260	<0.00037	*- *1	0.00037		mg/L		07/02/21 21:23	07/06/21 11:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		30 - 120	07/02/21 21:23	07/06/21 11:42	1
DCB Decachlorobiphenyl	77		30 - 140	07/02/21 21:23	07/06/21 11:42	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

GC Semi VOA

Prep Batch: 607649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-36	ED-R1SD-EB-11	Total/NA	Water	3510C	
MB 500-607649/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-607649/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-607649/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 607853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201737-36	ED-R1SD-EB-11	Total/NA	Water	8082A	607649
MB 500-607649/1-A	Method Blank	Total/NA	Water	8082A	607649
LCS 500-607649/4-A	Lab Control Sample	Total/NA	Water	8082A	607649
LCSD 500-607649/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	607649

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201737-36	ED-R1SD-EB-11	68	77
LCS 500-607649/4-A	Lab Control Sample	38	35
LCSD 500-607649/5-A	Lab Control Sample Dup	47	55
MB 500-607649/1-A	Method Blank	32	34

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-607649/1-A
Matrix: Water
Analysis Batch: 607853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607649

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1221	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1232	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1242	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1248	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1254	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1
PCB-1260	<0.00040		0.00040		mg/L		07/02/21 21:23	07/06/21 09:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	32		30 - 120	07/02/21 21:23	07/06/21 09:33	1
DCB Decachlorobiphenyl	34		30 - 140	07/02/21 21:23	07/06/21 09:33	1

Lab Sample ID: LCS 500-607649/4-A
Matrix: Water
Analysis Batch: 607853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607649

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00184	*-	mg/L		46	56 - 120
PCB-1260	0.00400	0.00198	*-	mg/L		50	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	38		30 - 120
DCB Decachlorobiphenyl	35		30 - 140

Lab Sample ID: LCSD 500-607649/5-A
Matrix: Water
Analysis Batch: 607853

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 607649

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00225		mg/L		56	56 - 120	20	20
PCB-1260	0.00400	0.00252	*1	mg/L		63	53 - 137	24	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	47		30 - 120
DCB Decachlorobiphenyl	55		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Client Sample ID: ED-R1SD-EB-11

Lab Sample ID: 500-201737-36

Date Collected: 07/01/21 14:00

Matrix: Water

Date Received: 07/01/21 16:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			607649	07/02/21 21:23	ACK	TAL CHI
Total/NA	Analysis	8082A		1	607853	07/06/21 11:42	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201737-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I. JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: 1084 Page 2	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State, Zip: TN, 37920 Phone: 865-340-4914(Tel) Email: jrnickfordobrien@cecinc.com		Due Date Requested:		TAT Requested (days): RUSH 24HR		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		Job #: 500-201737	
Project Name: Arconic PCB Rush Project - Lafayette, IN		PO #: Purchase Order not required		WO #:		Project #: 50019033		SSOW#:	
Site:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	
ED-RISD-009-2		7/1/21		1600		C S		S	
ED-RISD-010-2				1016		C S		S	
ED-RISD-011-2				1020		C S		S	
ED-RISD-012-2				1030		C S		S	
ED-RISD-014-2				1046		C S		S	
ED-RISD-015-2				1100		C S		S	
ED-RISD-017-2				1100		C S		S	
ED-RISD-018-2				1120		C S		S	
ED-RISD-020-2				1130		C S		S	
ED-RISD-021-2				1250		C S		S	
ED-RISD-022-2				1300		C S		S	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I, III, IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by		Date		Time		Method of Shipment:			
Relinquished by: [Signature]		Date/Time: 7/1/21 1440		Company: CEC		Received by: [Signature]		Date/Time: 7/1/21 1440	
Relinquished by: [Signature]		Date/Time: 7/1/21 1600		Company: EYA		Received by: [Signature]		Date/Time: 7/1/21 1600	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 2.9-2.5		7/9/2021			

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4									
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page 4 of 12 2 of 3									
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested											
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested:		Job #: 500-201737 Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:											
City: Knoxville		TAT Requested (days): RUSH 24HR		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No													
State, Zip: TN, 37920		PO #:		Purchase Order not required													
Phone: 865-340-4914(Tel)		WD #:															
Email: jrnickfordobrien@cecinc.com		Project #:		50019033													
Project Name: Arconic PCB Rush Project - Lafayette, IN		SSOW#:				Total Number of containers											
Site:																	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8082A - PCBs		Special Instructions/Note:	
										<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-024-2		7/1/21		1310		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
EP-RISD-024-2		7/1/21		1320		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW003W-2		7/1/21		1141		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
EP-RISD-SW005N-1		7/1/21		1143		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW007W-1		7/1/21		1146		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
EP-RISD-SW009N-1		7/1/21		1155		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW010S-1		7/1/21		1157		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW011N-1		7/1/21		1159		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
EP-RISD-SW013N-1		7/1/21		1210		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW014S-1		7/1/21		1216		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
ED-RISD-SW015N-1		7/1/21		1218		C S		S		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)											
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements											
Empty Kit Relinquished by			Date			Time			Method of Shipment:								
Relinquished by: <i>J. J. ...</i>			Date/Time: 7/1/21 1440			Company: CEC			Received by: <i>P. Seal</i>								
Relinquished by: <i>P. Seal</i>			Date/Time: 7/1/21 1600			Company: ECA			Received by: <i>Shirley Smith</i>								
Relinquished by:			Date/Time:			Company:			Received by:								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks.													

12
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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: <i>ISSORO EN 315A</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4											
Client Contact: Jenny Rickford O'Brien		Phone: <i>224-250-5434</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: 402 <i>3064</i>											
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: <i>500-201737</i>									
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MSMSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform MSMSD (Yes or No)		8082A - PCBs		Preservation Codes		Total Number of containers Special Instructions/Note:	
Field Filtered Sample (Yes or No)																			
Perform MSMSD (Yes or No)																			
8082A - PCBs																			
City: Knoxville		TAT Requested (days): <i>RUSH 24HR</i>								A HCL M - Hexane									
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		B NaOH N None															
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required		C - Zn Acetate O - AsNaO2															
Email: jrnickfordobrien@cecinc.com		WO #:		D - Nitric Acid P Na2O4S															
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		E - NaHSO4 Q - Na2SO3		F - MeOH R - Na2S2O3		G - Amchlor S - H2SO4											
Site:		SSOW#:		H - Ascorbic Acid T TSP Dodecahydrate		I - Ice U Acetone		J DI Water V - MCAA											
				K EDTA W pH 4-5		L - EDA Z other (specify)		Other:											
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)											
						Preservation Code													
<i>23 ED-RISD-SW009N-1</i>		<i>7/1/21</i>		<i>1230</i>		<i>C S</i>													
<i>24 ED-RISD-SW020S-1</i>		<i>7/1/21</i>		<i>1235</i>		<i>C S</i>													
<i>25 ED-RISD-SW072S</i>		<i>6/30/21</i>		<i>1120</i>		<i>C S</i>													
<i>26 ED-RISD-SW073W</i>		<i>6/30/21</i>		<i>1122</i>		<i>C S</i>													
<i>27 ED-RISD-SW074S</i>		<i>6/30/21</i>		<i>1135</i>		<i>C S</i>													
<i>28 ED-RISD-SW075W</i>		<i>6/30/21</i>		<i>1137</i>		<i>C S</i>													
<i>29 ED-RISD-SW076S</i>		<i>6/30/21</i>		<i>1145</i>		<i>C S</i>													
<i>30 ED-RISD-SW077W</i>		<i>6/30/21</i>		<i>1147</i>		<i>C S</i>													
<i>31 ED-RISD-SW078S</i>		<i>6/30/21</i>		<i>1200</i>		<i>C S</i>													
<i>32 ED-RISD-SW079W</i>		<i>6/30/21</i>		<i>1202</i>		<i>C S</i>													
<i>33 ED-RISD-SW080S</i>		<i>6/30/21</i>		<i>1210</i>		<i>C S</i>													
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)														
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months														
Deliverable Requested <input checked="" type="checkbox"/> I, <input type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)					Special Instructions/QC Requirements														
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:													
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1440</i>		Company: <i>LEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1440</i>											
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1600</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/1/21 1600</i>											
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:			7/9/2021												

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: ITORGENEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4											
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin		Page 4 of 12 4 of 4											
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: 500-201737									
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Preservation Codes		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)	
Field Filtered Sample (Yes or No)																			
Perform MS/MSD (Yes or No)																			
8082A - PCBs																			
City: Knoxville		TAT Requested (days): PLUS 24 HR								Other:									
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																	
Phone: 865-340-4914(Tel)		PO #:																	
Email: jrnickfordobrien@cecinc.com		Purchase Order not required																	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		WO #:		Total Number of containers													
Site:		SSOW#:																	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/foil, BT=Tissue, A=Air)		Special Instructions/Note:									
						Preservation Code:		<input checked="" type="checkbox"/> <input type="checkbox"/> N											
34 EP-RISD-SW08IN		6/30/21		1212		L S				1									
35 EP-RISD-DUP7		7/1/21		1136		C S				1									
36 EP-RISD-EB11		7/1/21		1400		G W				2									
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)															
Deliverable Requested I, II, III, IV, Other (specify)				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months															
Empty Kit Relinquished by		Date		Time		Method of Shipment:													
Relinquished by: <i>JSA</i>		Date/Time: 7/1/21 1440		Company: CEL		Received by: <i>P. Neal</i>		Date/Time: 7/1/21 1440		Company: ECA									
Relinquished by: <i>P. Neal</i>		Date/Time: 7/1/21 1600		Company: ECA		Received by: <i>Shirley Smith</i>		Date/Time: 7/1/21 1600		Company: ECA									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:									
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks.															

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201737-3

Login Number: 201737

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201839-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/6/2021 3:43:26 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Job ID: 500-201839-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201839-1

Comments

No additional comments.

Receipt

The samples were received on 7/2/2021 4:06 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Sample #19 "ED-RISD-EB-12" COC list 1 container however two containers were submitted.

GC Semi VOA

Method 8082A: The following samples were reported from the primary column due to DCB Decachlorobiphenyl, PCB-1016 and PCB-1260 recovering outside control limits for the continuing calibration verification (CCVIS) on the secondary column; therefore, the higher of the two results have been reported. ED-R1SD-038-2 (500-201839-1), ED-R1SD-055-1 (500-201839-3), ED-R1SD-057-1 (500-201839-4) and (CCVIS 500-607657/3)

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-055-1 (500-201839-3) and ED-R1SD-057-1 (500-201839-4).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1016: ED-R1SD-038-2 (500-201839-1).

Method 8082A: The %RPD between the primary and confirmation column exceeded 40% for PCB-1248 for the following sample: ED-R1SD-SW031N-1 (500-201839-7). The lower value has been reported and qualified in accordance with the laboratory's SOP.

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-607707 and analytical batch 500-607767 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW031N-1 (500-201839-7), ED-R1SD-SW032S-1 (500-201839-8), ED-R1SD-SW038S-1 (500-201839-10), ED-R1SD-SW039N-1 (500-201839-11), ED-R1SD-SW040S-1 (500-201839-12), ED-R1SD-SW042S-1 (500-201839-13), ED-R1SD-SW045N-1 (500-201839-15), ED-R1SD-SW047N-1 (500-201839-16), ED-R1SD-SW049N-1 (500-201839-17) and ED-R1SD-SWDUP5 (500-201839-18).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-038-2

Lab Sample ID: 500-201839-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	0.58		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-042-1

Lab Sample ID: 500-201839-2

No Detections.

Client Sample ID: ED-R1SD-055-1

Lab Sample ID: 500-201839-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.0		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-057-1

Lab Sample ID: 500-201839-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	2.6		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW029N

Lab Sample ID: 500-201839-5

No Detections.

Client Sample ID: ED-R1SD-SW030S-1

Lab Sample ID: 500-201839-6

No Detections.

Client Sample ID: ED-R1SD-SW031N-1

Lab Sample ID: 500-201839-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.7		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW032S-1

Lab Sample ID: 500-201839-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	4.9		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW034S-1

Lab Sample ID: 500-201839-9

No Detections.

Client Sample ID: ED-R1SD-SW038S-1

Lab Sample ID: 500-201839-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.8		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW039N-1

Lab Sample ID: 500-201839-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	3.7		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW040S-1

Lab Sample ID: 500-201839-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	7.1		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW042S-1

Lab Sample ID: 500-201839-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.42		0.39		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW044S-1

Lab Sample ID: 500-201839-14

No Detections.

Client Sample ID: ED-R1SD-SW045N-1

Lab Sample ID: 500-201839-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.43		0.36		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-SW047N-1

Lab Sample ID: 500-201839-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	4.1		0.41		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-SW049N-1

Lab Sample ID: 500-201839-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.61		0.36		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-SWDUP5

Lab Sample ID: 500-201839-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.2		0.36		mg/Kg	20	⊛	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201839-1	ED-R1SD-038-2	Solid	07/02/21 10:10	07/02/21 16:06	
500-201839-2	ED-R1SD-042-1	Solid	07/02/21 10:20	07/02/21 16:06	
500-201839-3	ED-R1SD-055-1	Solid	07/02/21 10:30	07/02/21 16:06	
500-201839-4	ED-R1SD-057-1	Solid	07/02/21 10:40	07/02/21 16:06	
500-201839-5	ED-R1SD-SW029N	Solid	07/02/21 08:30	07/02/21 16:06	
500-201839-6	ED-R1SD-SW030S-1	Solid	07/02/21 08:35	07/02/21 16:06	
500-201839-7	ED-R1SD-SW031N-1	Solid	07/02/21 08:37	07/02/21 16:06	
500-201839-8	ED-R1SD-SW032S-1	Solid	07/02/21 08:50	07/02/21 16:06	
500-201839-9	ED-R1SD-SW034S-1	Solid	07/02/21 08:55	07/02/21 16:06	
500-201839-10	ED-R1SD-SW038S-1	Solid	07/02/21 09:10	07/02/21 16:06	
500-201839-11	ED-R1SD-SW039N-1	Solid	07/02/21 09:12	07/02/21 16:06	
500-201839-12	ED-R1SD-SW040S-1	Solid	07/02/21 09:20	07/02/21 16:06	
500-201839-13	ED-R1SD-SW042S-1	Solid	07/02/21 09:30	07/02/21 16:06	
500-201839-14	ED-R1SD-SW044S-1	Solid	07/02/21 09:35	07/02/21 16:06	
500-201839-15	ED-R1SD-SW045N-1	Solid	07/02/21 09:40	07/02/21 16:06	
500-201839-16	ED-R1SD-SW047N-1	Solid	07/02/21 09:50	07/02/21 16:06	
500-201839-17	ED-R1SD-SW049N-1	Solid	07/02/21 10:00	07/02/21 16:06	
500-201839-18	ED-R1SD-SWDUP5	Solid	07/02/21 09:10	07/02/21 16:06	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-038-2

Lab Sample ID: 500-201839-1

Date Collected: 07/02/21 10:10

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 85.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.58		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:29	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:29	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:29	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:29	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:29	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:29	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	65		49 - 129	07/02/21 18:40	07/03/21 08:29	20
<i>DCB Decachlorobiphenyl</i>	78		37 - 121	07/02/21 18:40	07/03/21 08:29	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-042-1

Lab Sample ID: 500-201839-2

Date Collected: 07/02/21 10:20

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:44	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:44	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:44	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:44	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:44	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:44	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 08:44	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	07/02/21 18:40	07/03/21 08:44	20
DCB Decachlorobiphenyl	98		37 - 121	07/02/21 18:40	07/03/21 08:44	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-055-1

Lab Sample ID: 500-201839-3

Date Collected: 07/02/21 10:30

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 88.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	07/02/21 18:40	07/03/21 09:00	20
PCB-1221	<0.36		0.36		mg/Kg	☼	07/02/21 18:40	07/03/21 09:00	20
PCB-1232	<0.36		0.36		mg/Kg	☼	07/02/21 18:40	07/03/21 09:00	20
PCB-1242	2.0		0.36		mg/Kg	☼	07/02/21 18:40	07/03/21 09:00	20
PCB-1248	<0.36		0.36		mg/Kg	☼	07/02/21 18:40	07/03/21 09:00	20
PCB-1254	<0.36		0.36		mg/Kg	☼	07/02/21 18:40	07/03/21 09:00	20
PCB-1260	<0.36		0.36		mg/Kg	☼	07/02/21 18:40	07/03/21 09:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/02/21 18:40	07/03/21 09:00	20
DCB Decachlorobiphenyl	95		37 - 121	07/02/21 18:40	07/03/21 09:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-057-1

Lab Sample ID: 500-201839-4

Date Collected: 07/02/21 10:40

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 87.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 09:15	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 09:15	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 09:15	20
PCB-1242	2.6		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 09:15	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 09:15	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 09:15	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/02/21 18:40	07/03/21 09:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/02/21 18:40	07/03/21 09:15	20
DCB Decachlorobiphenyl	96		37 - 121	07/02/21 18:40	07/03/21 09:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW029N

Lab Sample ID: 500-201839-5

Date Collected: 07/02/21 08:30

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 85.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/03/21 09:31	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/03/21 09:31	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/03/21 09:31	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/03/21 09:31	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/03/21 09:31	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/03/21 09:31	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/02/21 18:40	07/03/21 09:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	07/02/21 18:40	07/03/21 09:31	20
DCB Decachlorobiphenyl	87		37 - 121	07/02/21 18:40	07/03/21 09:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW030S-1

Lab Sample ID: 500-201839-6

Date Collected: 07/02/21 08:35

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 89.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	07/04/21 08:00	07/06/21 10:48	20
PCB-1221	<0.35		0.35		mg/Kg	☼	07/04/21 08:00	07/06/21 10:48	20
PCB-1232	<0.35		0.35		mg/Kg	☼	07/04/21 08:00	07/06/21 10:48	20
PCB-1242	<0.35		0.35		mg/Kg	☼	07/04/21 08:00	07/06/21 10:48	20
PCB-1248	<0.35		0.35		mg/Kg	☼	07/04/21 08:00	07/06/21 10:48	20
PCB-1254	<0.35		0.35		mg/Kg	☼	07/04/21 08:00	07/06/21 10:48	20
PCB-1260	<0.35		0.35		mg/Kg	☼	07/04/21 08:00	07/06/21 10:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/04/21 08:00	07/06/21 10:48	20
DCB Decachlorobiphenyl	75		37 - 121	07/04/21 08:00	07/06/21 10:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW031N-1

Lab Sample ID: 500-201839-7

Date Collected: 07/02/21 08:37

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 87.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:04	20
PCB-1221	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:04	20
PCB-1232	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:04	20
PCB-1242	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:04	20
PCB-1248	1.7		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:04	20
PCB-1254	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:04	20
PCB-1260	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:04	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	07/04/21 08:00	07/06/21 11:04	20
DCB Decachlorobiphenyl	77		37 - 121	07/04/21 08:00	07/06/21 11:04	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW032S-1

Lab Sample ID: 500-201839-8

Date Collected: 07/02/21 08:50

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/04/21 08:00	07/06/21 11:19	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/04/21 08:00	07/06/21 11:19	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/04/21 08:00	07/06/21 11:19	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/04/21 08:00	07/06/21 11:19	20
PCB-1248	4.9		0.38		mg/Kg	☼	07/04/21 08:00	07/06/21 11:19	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/04/21 08:00	07/06/21 11:19	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/04/21 08:00	07/06/21 11:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/04/21 08:00	07/06/21 11:19	20
DCB Decachlorobiphenyl	76		37 - 121	07/04/21 08:00	07/06/21 11:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW034S-1

Lab Sample ID: 500-201839-9

Date Collected: 07/02/21 08:55

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 11:34	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 11:34	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 11:34	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 11:34	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 11:34	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 11:34	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 11:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/04/21 08:00	07/06/21 11:34	20
DCB Decachlorobiphenyl	87		37 - 121	07/04/21 08:00	07/06/21 11:34	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW038S-1

Lab Sample ID: 500-201839-10

Date Collected: 07/02/21 09:10

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 88.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:50	20
PCB-1221	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:50	20
PCB-1232	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:50	20
PCB-1242	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:50	20
PCB-1248	1.8		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:50	20
PCB-1254	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:50	20
PCB-1260	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 11:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	07/04/21 08:00	07/06/21 11:50	20
DCB Decachlorobiphenyl	82		37 - 121	07/04/21 08:00	07/06/21 11:50	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW039N-1

Lab Sample ID: 500-201839-11

Date Collected: 07/02/21 09:12

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 91.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36	F1	0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 12:05	20
PCB-1221	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 12:05	20
PCB-1232	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 12:05	20
PCB-1242	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 12:05	20
PCB-1248	3.7		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 12:05	20
PCB-1254	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 12:05	20
PCB-1260	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 12:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/04/21 08:00	07/06/21 12:05	20
DCB Decachlorobiphenyl	96		37 - 121	07/04/21 08:00	07/06/21 12:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW040S-1

Lab Sample ID: 500-201839-12

Date Collected: 07/02/21 09:20

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 83.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 12:51	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 12:51	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 12:51	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 12:51	20
PCB-1248	7.1		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 12:51	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 12:51	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 12:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/04/21 08:00	07/06/21 12:51	20
DCB Decachlorobiphenyl	72		37 - 121	07/04/21 08:00	07/06/21 12:51	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW042S-1

Lab Sample ID: 500-201839-13

Date Collected: 07/02/21 09:30

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 83.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 13:07	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 13:07	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 13:07	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 13:07	20
PCB-1248	0.42		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 13:07	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 13:07	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/04/21 08:00	07/06/21 13:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	07/04/21 08:00	07/06/21 13:07	20
DCB Decachlorobiphenyl	78		37 - 121	07/04/21 08:00	07/06/21 13:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW044S-1

Lab Sample ID: 500-201839-14

Date Collected: 07/02/21 09:35

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 89.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/04/21 08:00	07/06/21 13:22	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/04/21 08:00	07/06/21 13:22	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/04/21 08:00	07/06/21 13:22	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/04/21 08:00	07/06/21 13:22	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/04/21 08:00	07/06/21 13:22	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/04/21 08:00	07/06/21 13:22	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/04/21 08:00	07/06/21 13:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		49 - 129	07/04/21 08:00	07/06/21 13:22	20
DCB Decachlorobiphenyl	85		37 - 121	07/04/21 08:00	07/06/21 13:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW045N-1

Lab Sample ID: 500-201839-15

Date Collected: 07/02/21 09:40

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 92.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 13:38	20
PCB-1221	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 13:38	20
PCB-1232	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 13:38	20
PCB-1242	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 13:38	20
PCB-1248	0.43		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 13:38	20
PCB-1254	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 13:38	20
PCB-1260	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 13:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/04/21 08:00	07/06/21 13:38	20
DCB Decachlorobiphenyl	97		37 - 121	07/04/21 08:00	07/06/21 13:38	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW047N-1

Lab Sample ID: 500-201839-16

Date Collected: 07/02/21 09:50

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 80.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/04/21 08:00	07/06/21 13:53	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/04/21 08:00	07/06/21 13:53	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/04/21 08:00	07/06/21 13:53	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/04/21 08:00	07/06/21 13:53	20
PCB-1248	4.1		0.41		mg/Kg	☼	07/04/21 08:00	07/06/21 13:53	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/04/21 08:00	07/06/21 13:53	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/04/21 08:00	07/06/21 13:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/04/21 08:00	07/06/21 13:53	20
DCB Decachlorobiphenyl	90		37 - 121	07/04/21 08:00	07/06/21 13:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW049N-1

Lab Sample ID: 500-201839-17

Date Collected: 07/02/21 10:00

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 90.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:08	20
PCB-1221	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:08	20
PCB-1232	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:08	20
PCB-1242	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:08	20
PCB-1248	0.61		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:08	20
PCB-1254	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:08	20
PCB-1260	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	07/04/21 08:00	07/06/21 14:08	20
DCB Decachlorobiphenyl	77		37 - 121	07/04/21 08:00	07/06/21 14:08	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SWDUP5

Lab Sample ID: 500-201839-18

Date Collected: 07/02/21 09:10

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 89.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:24	20
PCB-1221	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:24	20
PCB-1232	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:24	20
PCB-1242	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:24	20
PCB-1248	2.2		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:24	20
PCB-1254	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:24	20
PCB-1260	<0.36		0.36		mg/Kg	☼	07/04/21 08:00	07/06/21 14:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/04/21 08:00	07/06/21 14:24	20
DCB Decachlorobiphenyl	88		37 - 121	07/04/21 08:00	07/06/21 14:24	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

GC Semi VOA

Prep Batch: 607627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201839-1	ED-R1SD-038-2	Total/NA	Solid	3541	
500-201839-2	ED-R1SD-042-1	Total/NA	Solid	3541	
500-201839-3	ED-R1SD-055-1	Total/NA	Solid	3541	
500-201839-4	ED-R1SD-057-1	Total/NA	Solid	3541	
500-201839-5	ED-R1SD-SW029N	Total/NA	Solid	3541	
MB 500-607627/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-607627/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 607657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201839-1	ED-R1SD-038-2	Total/NA	Solid	8082A	607627
500-201839-2	ED-R1SD-042-1	Total/NA	Solid	8082A	607627
500-201839-3	ED-R1SD-055-1	Total/NA	Solid	8082A	607627
500-201839-4	ED-R1SD-057-1	Total/NA	Solid	8082A	607627
500-201839-5	ED-R1SD-SW029N	Total/NA	Solid	8082A	607627
MB 500-607627/1-A	Method Blank	Total/NA	Solid	8082A	607627
LCS 500-607627/2-A	Lab Control Sample	Total/NA	Solid	8082A	607627

Prep Batch: 607707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201839-6	ED-R1SD-SW030S-1	Total/NA	Solid	3541	
500-201839-7	ED-R1SD-SW031N-1	Total/NA	Solid	3541	
500-201839-8	ED-R1SD-SW032S-1	Total/NA	Solid	3541	
500-201839-9	ED-R1SD-SW034S-1	Total/NA	Solid	3541	
500-201839-10	ED-R1SD-SW038S-1	Total/NA	Solid	3541	
500-201839-11	ED-R1SD-SW039N-1	Total/NA	Solid	3541	
500-201839-12	ED-R1SD-SW040S-1	Total/NA	Solid	3541	
500-201839-13	ED-R1SD-SW042S-1	Total/NA	Solid	3541	
500-201839-14	ED-R1SD-SW044S-1	Total/NA	Solid	3541	
500-201839-15	ED-R1SD-SW045N-1	Total/NA	Solid	3541	
500-201839-16	ED-R1SD-SW047N-1	Total/NA	Solid	3541	
500-201839-17	ED-R1SD-SW049N-1	Total/NA	Solid	3541	
500-201839-18	ED-R1SD-SWDUP5	Total/NA	Solid	3541	
MB 500-607707/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-607707/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201839-11 MS	ED-R1SD-SW039N-1	Total/NA	Solid	3541	
500-201839-11 MSD	ED-R1SD-SW039N-1	Total/NA	Solid	3541	

Analysis Batch: 607767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201839-6	ED-R1SD-SW030S-1	Total/NA	Solid	8082A	607707
500-201839-7	ED-R1SD-SW031N-1	Total/NA	Solid	8082A	607707
500-201839-8	ED-R1SD-SW032S-1	Total/NA	Solid	8082A	607707
500-201839-9	ED-R1SD-SW034S-1	Total/NA	Solid	8082A	607707
500-201839-10	ED-R1SD-SW038S-1	Total/NA	Solid	8082A	607707
500-201839-11	ED-R1SD-SW039N-1	Total/NA	Solid	8082A	607707
500-201839-12	ED-R1SD-SW040S-1	Total/NA	Solid	8082A	607707
500-201839-13	ED-R1SD-SW042S-1	Total/NA	Solid	8082A	607707
500-201839-14	ED-R1SD-SW044S-1	Total/NA	Solid	8082A	607707
500-201839-15	ED-R1SD-SW045N-1	Total/NA	Solid	8082A	607707
500-201839-16	ED-R1SD-SW047N-1	Total/NA	Solid	8082A	607707

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QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

GC Semi VOA (Continued)

Analysis Batch: 607767 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201839-17	ED-R1SD-SW049N-1	Total/NA	Solid	8082A	607707
500-201839-18	ED-R1SD-SWDUP5	Total/NA	Solid	8082A	607707
MB 500-607707/1-A	Method Blank	Total/NA	Solid	8082A	607707
LCS 500-607707/2-A	Lab Control Sample	Total/NA	Solid	8082A	607707
500-201839-11 MS	ED-R1SD-SW039N-1	Total/NA	Solid	8082A	607707
500-201839-11 MSD	ED-R1SD-SW039N-1	Total/NA	Solid	8082A	607707

General Chemistry

Analysis Batch: 607712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201839-1	ED-R1SD-038-2	Total/NA	Solid	Moisture	
500-201839-2	ED-R1SD-042-1	Total/NA	Solid	Moisture	
500-201839-3	ED-R1SD-055-1	Total/NA	Solid	Moisture	
500-201839-4	ED-R1SD-057-1	Total/NA	Solid	Moisture	
500-201839-5	ED-R1SD-SW029N	Total/NA	Solid	Moisture	
500-201839-6	ED-R1SD-SW030S-1	Total/NA	Solid	Moisture	
500-201839-7	ED-R1SD-SW031N-1	Total/NA	Solid	Moisture	
500-201839-8	ED-R1SD-SW032S-1	Total/NA	Solid	Moisture	
500-201839-9	ED-R1SD-SW034S-1	Total/NA	Solid	Moisture	
500-201839-10	ED-R1SD-SW038S-1	Total/NA	Solid	Moisture	
500-201839-11	ED-R1SD-SW039N-1	Total/NA	Solid	Moisture	
500-201839-12	ED-R1SD-SW040S-1	Total/NA	Solid	Moisture	
500-201839-13	ED-R1SD-SW042S-1	Total/NA	Solid	Moisture	
500-201839-14	ED-R1SD-SW044S-1	Total/NA	Solid	Moisture	
500-201839-15	ED-R1SD-SW045N-1	Total/NA	Solid	Moisture	
500-201839-16	ED-R1SD-SW047N-1	Total/NA	Solid	Moisture	
500-201839-17	ED-R1SD-SW049N-1	Total/NA	Solid	Moisture	
500-201839-18	ED-R1SD-SWDUP5	Total/NA	Solid	Moisture	
500-201839-11 DU	ED-R1SD-SW039N-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-201839-1	ED-R1SD-038-2	65	78
500-201839-2	ED-R1SD-042-1	73	98
500-201839-3	ED-R1SD-055-1	74	95
500-201839-4	ED-R1SD-057-1	74	96
500-201839-5	ED-R1SD-SW029N	76	87
500-201839-11	ED-R1SD-SW039N-1	75	96
500-201839-11 MS	ED-R1SD-SW039N-1	73	91
500-201839-11 MSD	ED-R1SD-SW039N-1	71	89
500-201839-15	ED-R1SD-SW045N-1	74	97
LCS 500-607627/2-A	Lab Control Sample	84	84
MB 500-607627/1-A	Method Blank	88	90

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201839-6	ED-R1SD-SW030S-1	72	75
500-201839-7	ED-R1SD-SW031N-1	73	77
500-201839-8	ED-R1SD-SW032S-1	72	76
500-201839-9	ED-R1SD-SW034S-1	72	87
500-201839-10	ED-R1SD-SW038S-1	71	82
500-201839-12	ED-R1SD-SW040S-1	67	72
500-201839-13	ED-R1SD-SW042S-1	71	78
500-201839-14	ED-R1SD-SW044S-1	64	85
500-201839-16	ED-R1SD-SW047N-1	75	90
500-201839-17	ED-R1SD-SW049N-1	65	77
500-201839-18	ED-R1SD-SWDUP5	74	88
LCS 500-607707/2-A	Lab Control Sample	78	77
MB 500-607707/1-A	Method Blank	76	69

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-607627/1-A
Matrix: Solid
Analysis Batch: 607657

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607627

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1221	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1232	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1242	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1248	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1254	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	
PCB-1260	<0.33		0.33		mg/Kg		07/02/21 18:40	07/03/21 03:36		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	88		49 - 129	07/02/21 18:40		07/03/21 03:36		20
DCB Decachlorobiphenyl	90		37 - 121	07/02/21 18:40		07/03/21 03:36		20

Lab Sample ID: LCS 500-607627/2-A
Matrix: Solid
Analysis Batch: 607657

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607627

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.40		mg/Kg		84	57 - 120	
PCB-1260	1.67	1.54		mg/Kg		92	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	84		49 - 129
DCB Decachlorobiphenyl	84		37 - 121

Lab Sample ID: MB 500-607707/1-A
Matrix: Solid
Analysis Batch: 607767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607707

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/04/21 08:00	07/06/21 10:17		20	
PCB-1221	<0.33		0.33		mg/Kg		07/04/21 08:00	07/06/21 10:17		20	
PCB-1232	<0.33		0.33		mg/Kg		07/04/21 08:00	07/06/21 10:17		20	
PCB-1242	<0.33		0.33		mg/Kg		07/04/21 08:00	07/06/21 10:17		20	
PCB-1248	<0.33		0.33		mg/Kg		07/04/21 08:00	07/06/21 10:17		20	
PCB-1254	<0.33		0.33		mg/Kg		07/04/21 08:00	07/06/21 10:17		20	
PCB-1260	<0.33		0.33		mg/Kg		07/04/21 08:00	07/06/21 10:17		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	76		49 - 129	07/04/21 08:00		07/06/21 10:17		20
DCB Decachlorobiphenyl	69		37 - 121	07/04/21 08:00		07/06/21 10:17		20

Lab Sample ID: LCS 500-607707/2-A
Matrix: Solid
Analysis Batch: 607767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607707

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.37		mg/Kg		82	57 - 120	
PCB-1260	1.67	1.37		mg/Kg		82	61 - 125	

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

<u>Surrogate</u>	<u>LCS</u> <u>%Recovery</u>	<u>LCS</u> <u>Qualifier</u>	<u>Limits</u>
Tetrachloro- <i>m</i> -xylene	78		49 - 129
DCB Decachlorobiphenyl	77		37 - 121

Lab Sample ID: 500-201839-11 MS
Matrix: Solid
Analysis Batch: 607767

Client Sample ID: ED-R1SD-SW039N-1
Prep Type: Total/NA
Prep Batch: 607707

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MS</u> <u>Result</u>	<u>MS</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>Limits</u>
PCB-1016	<0.36	F1	1.81	3.12	F1	mg/Kg	⊛	172	57 - 120
PCB-1260	<0.36		1.81	2.07		mg/Kg	⊛	114	61 - 125

<u>Surrogate</u>	<u>MS</u> <u>%Recovery</u>	<u>MS</u> <u>Qualifier</u>	<u>Limits</u>
Tetrachloro- <i>m</i> -xylene	73		49 - 129
DCB Decachlorobiphenyl	91		37 - 121

Lab Sample ID: 500-201839-11 MSD
Matrix: Solid
Analysis Batch: 607767

Client Sample ID: ED-R1SD-SW039N-1
Prep Type: Total/NA
Prep Batch: 607707

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MSD</u> <u>Result</u>	<u>MSD</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>Limits</u>	<u>RPD</u>	<u>RPD</u> <u>Limit</u>
PCB-1016	<0.36	F1	1.75	3.41	F1	mg/Kg	⊛	195	57 - 120	9	30
PCB-1260	<0.36		1.75	2.09		mg/Kg	⊛	120	61 - 125	1	30

<u>Surrogate</u>	<u>MSD</u> <u>%Recovery</u>	<u>MSD</u> <u>Qualifier</u>	<u>Limits</u>
Tetrachloro- <i>m</i> -xylene	71		49 - 129
DCB Decachlorobiphenyl	89		37 - 121

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-038-2

Date Collected: 07/02/21 10:10

Date Received: 07/02/21 16:06

Lab Sample ID: 500-201839-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-038-2

Date Collected: 07/02/21 10:10

Date Received: 07/02/21 16:06

Lab Sample ID: 500-201839-1

Matrix: Solid

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 08:29	SS	TAL CHI

Client Sample ID: ED-R1SD-042-1

Date Collected: 07/02/21 10:20

Date Received: 07/02/21 16:06

Lab Sample ID: 500-201839-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-042-1

Date Collected: 07/02/21 10:20

Date Received: 07/02/21 16:06

Lab Sample ID: 500-201839-2

Matrix: Solid

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 08:44	SS	TAL CHI

Client Sample ID: ED-R1SD-055-1

Date Collected: 07/02/21 10:30

Date Received: 07/02/21 16:06

Lab Sample ID: 500-201839-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-055-1

Date Collected: 07/02/21 10:30

Date Received: 07/02/21 16:06

Lab Sample ID: 500-201839-3

Matrix: Solid

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 09:00	SS	TAL CHI

Client Sample ID: ED-R1SD-057-1

Date Collected: 07/02/21 10:40

Date Received: 07/02/21 16:06

Lab Sample ID: 500-201839-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-057-1

Lab Sample ID: 500-201839-4

Date Collected: 07/02/21 10:40

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 09:15	SS	TAL CHI

Client Sample ID: ED-R1SD-SW029N

Lab Sample ID: 500-201839-5

Date Collected: 07/02/21 08:30

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW029N

Lab Sample ID: 500-201839-5

Date Collected: 07/02/21 08:30

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607627	07/02/21 18:40	JP1	TAL CHI
Total/NA	Analysis	8082A		20	607657	07/03/21 09:31	SS	TAL CHI

Client Sample ID: ED-R1SD-SW030S-1

Lab Sample ID: 500-201839-6

Date Collected: 07/02/21 08:35

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW030S-1

Lab Sample ID: 500-201839-6

Date Collected: 07/02/21 08:35

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 10:48	JB	TAL CHI

Client Sample ID: ED-R1SD-SW031N-1

Lab Sample ID: 500-201839-7

Date Collected: 07/02/21 08:37

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW031N-1

Lab Sample ID: 500-201839-7

Date Collected: 07/02/21 08:37

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 11:04	JBJ	TAL CHI

Client Sample ID: ED-R1SD-SW032S-1

Lab Sample ID: 500-201839-8

Date Collected: 07/02/21 08:50

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW032S-1

Lab Sample ID: 500-201839-8

Date Collected: 07/02/21 08:50

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 11:19	JBJ	TAL CHI

Client Sample ID: ED-R1SD-SW034S-1

Lab Sample ID: 500-201839-9

Date Collected: 07/02/21 08:55

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW034S-1

Lab Sample ID: 500-201839-9

Date Collected: 07/02/21 08:55

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 11:34	JBJ	TAL CHI

Client Sample ID: ED-R1SD-SW038S-1

Lab Sample ID: 500-201839-10

Date Collected: 07/02/21 09:10

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW038S-1

Lab Sample ID: 500-201839-10

Date Collected: 07/02/21 09:10

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 11:50	JBj	TAL CHI

Client Sample ID: ED-R1SD-SW039N-1

Lab Sample ID: 500-201839-11

Date Collected: 07/02/21 09:12

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW039N-1

Lab Sample ID: 500-201839-11

Date Collected: 07/02/21 09:12

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 91.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 12:05	JBj	TAL CHI

Client Sample ID: ED-R1SD-SW040S-1

Lab Sample ID: 500-201839-12

Date Collected: 07/02/21 09:20

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW040S-1

Lab Sample ID: 500-201839-12

Date Collected: 07/02/21 09:20

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 12:51	JBj	TAL CHI

Client Sample ID: ED-R1SD-SW042S-1

Lab Sample ID: 500-201839-13

Date Collected: 07/02/21 09:30

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW042S-1

Lab Sample ID: 500-201839-13

Date Collected: 07/02/21 09:30

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 13:07	JBJ	TAL CHI

Client Sample ID: ED-R1SD-SW044S-1

Lab Sample ID: 500-201839-14

Date Collected: 07/02/21 09:35

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW044S-1

Lab Sample ID: 500-201839-14

Date Collected: 07/02/21 09:35

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 13:22	JBJ	TAL CHI

Client Sample ID: ED-R1SD-SW045N-1

Lab Sample ID: 500-201839-15

Date Collected: 07/02/21 09:40

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW045N-1

Lab Sample ID: 500-201839-15

Date Collected: 07/02/21 09:40

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 13:38	JBJ	TAL CHI

Client Sample ID: ED-R1SD-SW047N-1

Lab Sample ID: 500-201839-16

Date Collected: 07/02/21 09:50

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Client Sample ID: ED-R1SD-SW047N-1

Lab Sample ID: 500-201839-16

Date Collected: 07/02/21 09:50

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 80.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 13:53	JBJ	TAL CHI

Client Sample ID: ED-R1SD-SW049N-1

Lab Sample ID: 500-201839-17

Date Collected: 07/02/21 10:00

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW049N-1

Lab Sample ID: 500-201839-17

Date Collected: 07/02/21 10:00

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 14:08	JBJ	TAL CHI

Client Sample ID: ED-R1SD-SWDUP5

Lab Sample ID: 500-201839-18

Date Collected: 07/02/21 09:10

Matrix: Solid

Date Received: 07/02/21 16:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607712	07/04/21 22:24	PFK	TAL CHI

Client Sample ID: ED-R1SD-SWDUP5

Lab Sample ID: 500-201839-18

Date Collected: 07/02/21 09:10

Matrix: Solid

Date Received: 07/02/21 16:06

Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607707	07/04/21 08:00	DAK	TAL CHI
Total/NA	Analysis	8082A		20	607767	07/06/21 14:24	JBJ	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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15

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4			
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 4 of 2			
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested				Job #: 500-201839			
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State, Zip: TN, 37920		Due Date Requested:		 <p>500-201839 COC</p>				Preservation Codes:			
Phone: 865-340-4914(Tel)		TAT Requested (days): RUSH HR24						M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Email: jrnickfordobrien@cecinc.com		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Project Name: Arconic PCB Rush Project - Lafayette, IN		PO #: Purchase Order not required									
Site:		WO #:									
Project #: 50019033		SSOW#:		Field Filtered Sample (Yes or No)		Perform ICM/MSD (Yes or No)		Total Number of Containers			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)		Special Instructions/Note:	
						Preservation Code:		X		X	
1	ED-RISD-038-2		7/2/21	1010	C	S			X		
2	ED-RISD-042-1		7/2/21	1020	C	S			X		
3	ED-RISD-055-1		7/2/21	1030	C	S			X		
4	ED-RISD-057-1		7/2/21	1040	C	S			X		
5	ED-RISD-SW029M		7/2/21	0830	C	S			X		
6	ED-RISD-SW030S-1		7/2/21	0835	C	S			X		
7	ED-RISD-SW031N-1		7/2/21	0837	C	S			X		
8	ED-RISD-SW032S-1		7/2/21	0850	C	S			X		
9	ED-RISD-SW034S-1		7/2/21	0855	C	S			X		
10	ED-RISD-SW038S-1		7/2/21	0910	C	S			X		
11	ED-RISD-SW039N-1		7/2/21	0912	C	S			X	X	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I, <input checked="" type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:				
Relinquished by: <i>[Signature]</i>			Date/Time: 7/2/21 1450		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 7/2/21 1450		Company: ERK
Relinquished by: <i>[Signature]</i>			Date/Time: 7/2/21 1606		Company: EA		Received by: Stephanie Hemondy		Date/Time: 7/2/21 1606		Company: ETA-CH
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 1.8 → 08							

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page 4 of 2022	
Company: Civil & Environmental Consultants Inc				PWSID		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: 500-201839	
City: Knoxville		TAT Requested (days): RUSH 24HR						Preservation Codes:	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B NaOH N None	
Email: jrickfordobrien@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P Na2O4S		E NaHSO4 Q - Na2SO3		F - MeOH R Na2S2O3	
Site:		SSOW#:		G - Amchlor S - H2SO4		H - Ascorbic Acid T - TSP Dodecahydrate		I - Ice U - Acetone	
J DI Water V - MCAA		K EDTA W pH 4-5		L EDA Z other (specify)		Other:			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
						Preservation Code:			
12	ED-RISD-SW0405-1	7/2/21	0920	C	S	X	X	N	
13	ED-RISD-SW0410-1	7/2/21	0922	C	S	X	X		
14	ED-RISD-SW0425-1	7/2/21	0936	C	S	X	X		
15	ED-RISD-SW0443-1	7/2/21	0935	C	S	X	X		
16	ED-RISD-SW045N-1	7/2/21	0940	C	S	X	X		
17	ED-RISD-SW047N-1	7/2/21	0950	C	S	X	X		
18	ED-RISD-SW049N-1	7/2/21	1000	C	S	X	X		
19	ED-RISD-SWD0P5	7/2/21	0940	C	S	X	X		
20	ED-RISD-EB12	7/2/21	1400	G	W	X	X		
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested <input checked="" type="checkbox"/> I, II, III, IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>ZDC</i>		Date/Time: 7/2/21 12150		Company: <i>ZEE</i>		Received by: <i>P Neal</i>		Date/Time: 7/2/21 1450	
Relinquished by: <i>P. Neal</i>		Date/Time: 7/2/21 1606		Company: <i>EIA</i>		Received by: <i>Stephanie Hemond</i>		Date/Time: 7/2/21 1606	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks			7/6/2021		

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201839-1

Login Number: 201839

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201839-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/12/2021 2:52:48 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Job ID: 500-201839-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201839-2

Comments

No additional comments.

Receipt

The samples were received on 7/2/2021 4:06 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Sample #19 "ED-RISD-EB-12" COC list 1 container however two containers were submitted.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Client Sample ID: ED-R1SD-EB-12

Lab Sample ID: 500-201839-19

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201839-19	ED-R1SD-EB-12	Water	07/02/21 14:00	07/02/21 16:06	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Client Sample ID: ED-R1SD-EB-12

Lab Sample ID: 500-201839-19

Date Collected: 07/02/21 14:00

Matrix: Water

Date Received: 07/02/21 16:06

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00039		0.00039		mg/L		07/08/21 13:57	07/08/21 23:18	1
PCB-1221	<0.00039		0.00039		mg/L		07/08/21 13:57	07/08/21 23:18	1
PCB-1232	<0.00039		0.00039		mg/L		07/08/21 13:57	07/08/21 23:18	1
PCB-1242	<0.00039		0.00039		mg/L		07/08/21 13:57	07/08/21 23:18	1
PCB-1248	<0.00039		0.00039		mg/L		07/08/21 13:57	07/08/21 23:18	1
PCB-1254	<0.00039		0.00039		mg/L		07/08/21 13:57	07/08/21 23:18	1
PCB-1260	<0.00039		0.00039		mg/L		07/08/21 13:57	07/08/21 23:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		30 - 120	07/08/21 13:57	07/08/21 23:18	1
DCB Decachlorobiphenyl	70		30 - 140	07/08/21 13:57	07/08/21 23:18	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

GC Semi VOA

Prep Batch: 608418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201839-19	ED-R1SD-EB-12	Total/NA	Water	3510C	
MB 500-608418/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-608418/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-608418/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 608474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201839-19	ED-R1SD-EB-12	Total/NA	Water	8082A	608418
MB 500-608418/1-A	Method Blank	Total/NA	Water	8082A	608418
LCS 500-608418/4-A	Lab Control Sample	Total/NA	Water	8082A	608418
LCSD 500-608418/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	608418

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201839-19	ED-R1SD-EB-12	67	70
LCS 500-608418/4-A	Lab Control Sample	60	83
LCSD 500-608418/5-A	Lab Control Sample Dup	77	94
MB 500-608418/1-A	Method Blank	57	68

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-608418/1-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1221	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1232	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1242	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1248	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1254	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1260	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		30 - 120	07/08/21 13:57	07/08/21 22:14	1
DCB Decachlorobiphenyl	68		30 - 140	07/08/21 13:57	07/08/21 22:14	1

Lab Sample ID: LCS 500-608418/4-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00294		mg/L		73	56 - 120
PCB-1260	0.00400	0.00341		mg/L		85	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	60		30 - 120
DCB Decachlorobiphenyl	83		30 - 140

Lab Sample ID: LCSD 500-608418/5-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 608418

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00356		mg/L		89	56 - 120	19	20
PCB-1260	0.00400	0.00415		mg/L		104	53 - 137	20	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	77		30 - 120
DCB Decachlorobiphenyl	94		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Client Sample ID: ED-R1SD-EB-12

Lab Sample ID: 500-201839-19

Date Collected: 07/02/21 14:00

Matrix: Water

Date Received: 07/02/21 16:06

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			608418	07/08/21 13:57	DAK	TAL CHI
Total/NA	Analysis	8082A		1	608474	07/08/21 23:18	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201839-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4			
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 4 of 2 1 of 2			
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested				Job #: 500-201839			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		 500-201839 COC				Preservation Codes:			
City: Knoxville		TAT Requested (days): RUSH HR24						A HCL M - Hexane		B - NaOH N None	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						C - Zn Acetate O - AsNaO2		D - Nitric Acid P Na2O4S	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						E - NaHSO4 Q - Na2SO3		F - MeOH R Na2S2O3	
Email: jrickfordobrien@cecinc.com		WO #:						G - Amchlor S - H2SO4		H - Ascorbic Acid T TSP Dodecahydrate	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		I - Ice U - Acetone		J DI Water V - MCAA		K EDTA W pH 4-5			
Site: SSOW#:		L EDA Z other (specify)		Other:							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform ICM/MSD (Yes or No)	8092A - PCBs	Total Number of containers	Special Instructions/Note:	
1	ED-RISD-038-2	7/2/21	1010	C	S	X			1		
2	ED-RISD-042-1	7/2/21	1020	C	S	X			1		
3	ED-RISD-055-1	7/2/21	1030	C	S	X			1		
4	ED-RISD-057-1	7/2/21	1040	C	S	X			1		
5	ED-RISD-SW029M	7/2/21	0830	C	S	X			1		
6	ED-RISD-SW030S-1	7/2/21	0835	C	S	X			1		
7	ED-RISD-SW031N-1	7/2/21	0837	C	S	X			1		
8	ED-RISD-SW032S-1	7/2/21	0850	C	S	X			1		
9	ED-RISD-SW034S-1	7/2/21	0855	C	S	X			1		
10	ED-RISD-SW038S-1	7/2/21	0910	C	S	X			1		
11	ED-RISD-SW039N-1	7/2/21	0912	C	S	X	X		3		
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I, <input checked="" type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by:		Date:		Time		Method of Shipment:					
Relinquished by: <i>[Signature]</i>		Date/Time: 7/2/21 1450		Company: LEC		Received by: <i>[Signature]</i>		Date/Time: 7/2/21 1450		Company: ETR	
Relinquished by: <i>[Signature]</i>		Date/Time: 7/2/21 1606		Company: EA		Received by: Stephanie Hernandez		Date/Time: 7/2/21 1606		Company: ETA-CHI	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 1.8 → 08							

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page 4 of 2022	
Company: Civil & Environmental Consultants Inc				PWSID		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: 500-201839	
City: Knoxville		TAT Requested (days): RUSH 24HR						Preservation Codes:	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B NaOH N None	
Email: jrnickfordobrien@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P Na2O4S		E NaHSO4 Q - Na2SO3		F - MeOH R Na2S2O3	
Site:		SSOW#:		G - Amchlor S - H2SO4		H - Ascorbic Acid T - TSP Dodecahydrate		I - Ice U - Acetone	
J DI Water V - MCAA		K EDTA W pH 4-5		L EDA Z other (specify)		Other:			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code:	
ED-RISD-SW0405-1		7/2/21		0920		C S		S	
ED-RISD-SW0410-1		7/2/21		0922		C S		S	
ED-RISD-SW0425-1		7/2/21		0936		C S		S	
ED-RISD-SW0443-1		7/2/21		0935		C S		S	
ED-RISD-SW045N-1		7/2/21		0940		C S		S	
ED-RISD-SW047N-1		7/2/21		0950		C S		S	
ED-RISD-SW049N-1		7/2/21		1000		C S		S	
ED-RISD-SW049P5		7/2/21		0940		C S		S	
ED-RISD-EB12		7/2/21		1400		G W		W	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Deliverable Requested <input checked="" type="checkbox"/> I, II, III, IV, Other (specify)								<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: ZDC		Date/Time: 7/2/21 12150		Company: ZEE		Received by: P Neal		Date/Time: 7/2/21 1450	
Relinquished by: P. Neal		Date/Time: 7/2/21 1606		Company: EIA		Received by: Stephanie Hemond		Date/Time: 7/2/21 1606	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks					

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201839-2

Login Number: 201839

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201900-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 1

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/8/2021 4:17:16 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Job ID: 500-201900-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201900-1

Comments

No additional comments.

Receipt

The samples were received on 7/6/2021 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

Received 2 bottles for samples 25 & 26, COC has 1.

Revised Report

The report was revised to change sample ID ED-R1SD-SW056S-1 to ED-R1SD-SW050S-1. ED-R1SD-SW050S-1 (500-201900-3)

GC Semi VOA

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-607966 and analytical batch 500-607993 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-021-3 (500-201900-1), ED-R1SD-SW051N-1 (500-201900-4), ED-R1SD-SW062S-1 (500-201900-8), ED-R1SD-SW064S-1 (500-201900-9), ED-R1SD-079-1 (500-201900-12), ED-R1SD-090 (500-201900-13), ED-R1SD-091 (500-201900-14), ED-R1SD-092 (500-201900-15), ED-R1SD-093 (500-201900-16), ED-R1SD-094 (500-201900-17), ED-R1SD-095 (500-201900-18), ED-R1SD-096 (500-201900-19) and ED-R1SD-097 (500-201900-20).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1232: ED-R1SD-SW013N-2 (500-201900-2), ED-R1SD-SW050S-1 (500-201900-3), ED-R1SD-SW053N-1 (500-201900-5), ED-R1SD-SW064S-1 (500-201900-9), ED-R1SD-SW066S-1 (500-201900-10), ED-R1SD-091 (500-201900-14), ED-R1SD-092 (500-201900-15), ED-R1SD-093 (500-201900-16), ED-R1SD-094 (500-201900-17), ED-R1SD-095 (500-201900-18), ED-R1SD-096 (500-201900-19) and ED-R1SD-097 (500-201900-20).

Method 8082A: The following samples were reported from the primary column due to PCB-1260 recovering bias low outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the results have been reported.

Method 8082A: Tetrachloro-m-xylene Surrogate recovery for the following sample was outside control limits: ED-R1SD-SW066S-1 (500-201900-10). DCB Decachlorobiphenyl Surrogate was within the control limits; therefore, re-extraction and/or re-analysis was not performed.

Method 8082A: The following sample required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW053N-1 (500-201900-5), ED-R1SD-SW064S-1 (500-201900-9) and ED-R1SD-097 (500-201900-20). The reagent lot number used was: Z07G073.

Method 8082A: DCB Decachlorobiphenyl Surrogate recovery for the following sample was outside control limits: ED-R1SD-SW053N-1 (500-201900-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-021-3

Lab Sample ID: 500-201900-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.49		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW013N-2

Lab Sample ID: 500-201900-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	6.4		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW050S-1

Lab Sample ID: 500-201900-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	4.4		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW051N-1

Lab Sample ID: 500-201900-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.9		0.47		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW053N-1

Lab Sample ID: 500-201900-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	8.8		2.0		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW055N-1

Lab Sample ID: 500-201900-6

No Detections.

Client Sample ID: ED-R1SD-SW057N-1

Lab Sample ID: 500-201900-7

No Detections.

Client Sample ID: ED-R1SD-SW062S-1

Lab Sample ID: 500-201900-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.55		0.45		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW064S-1

Lab Sample ID: 500-201900-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	5.0		0.41		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	2.4		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW066S-1

Lab Sample ID: 500-201900-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	0.53		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW067N-1

Lab Sample ID: 500-201900-11

No Detections.

Client Sample ID: ED-R1SD-079-1

Lab Sample ID: 500-201900-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.4		0.41		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-090

Lab Sample ID: 500-201900-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.57		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-091

Lab Sample ID: 500-201900-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	1.5		0.37		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	0.64		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-092

Lab Sample ID: 500-201900-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	2.2		0.46		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	1.0		0.46		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-093

Lab Sample ID: 500-201900-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	0.76		0.44		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-094

Lab Sample ID: 500-201900-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	2.3		0.42		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	1.5		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-095

Lab Sample ID: 500-201900-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	4.6		0.52		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	4.5		0.52		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-096

Lab Sample ID: 500-201900-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	2.9		0.47		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	3.3		0.47		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-097

Lab Sample ID: 500-201900-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.4		0.42		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	1.8		0.42		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201900-1	ED-R1SD-021-3	Solid	07/03/21 14:00	07/06/21 15:00	
500-201900-2	ED-R1SD-SW013N-2	Solid	07/03/21 14:10	07/06/21 15:00	
500-201900-3	ED-R1SD-SW050S-1	Solid	07/02/21 15:30	07/06/21 15:00	
500-201900-4	ED-R1SD-SW051N-1	Solid	07/02/21 15:32	07/06/21 15:00	
500-201900-5	ED-R1SD-SW053N-1	Solid	07/02/21 15:40	07/06/21 15:00	
500-201900-6	ED-R1SD-SW055N-1	Solid	07/02/21 15:45	07/06/21 15:00	
500-201900-7	ED-R1SD-SW057N-1	Solid	07/02/21 15:50	07/06/21 15:00	
500-201900-8	ED-R1SD-SW062S-1	Solid	07/02/21 16:10	07/06/21 15:00	
500-201900-9	ED-R1SD-SW064S-1	Solid	07/02/21 16:15	07/06/21 15:00	
500-201900-10	ED-R1SD-SW066S-1	Solid	07/03/21 06:30	07/06/21 15:00	
500-201900-11	ED-R1SD-SW067N-1	Solid	07/03/21 06:35	07/06/21 15:00	
500-201900-12	ED-R1SD-079-1	Solid	07/03/21 06:50	07/06/21 15:00	
500-201900-13	ED-R1SD-090	Solid	07/03/21 08:45	07/06/21 15:00	
500-201900-14	ED-R1SD-091	Solid	07/03/21 08:50	07/06/21 15:00	
500-201900-15	ED-R1SD-092	Solid	07/03/21 08:55	07/06/21 15:00	
500-201900-16	ED-R1SD-093	Solid	07/03/21 09:10	07/06/21 15:00	
500-201900-17	ED-R1SD-094	Solid	07/03/21 09:15	07/06/21 15:00	
500-201900-18	ED-R1SD-095	Solid	07/03/21 09:45	07/06/21 15:00	
500-201900-19	ED-R1SD-096	Solid	07/03/21 09:50	07/06/21 15:00	
500-201900-20	ED-R1SD-097	Solid	07/03/21 10:05	07/06/21 15:00	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-021-3

Lab Sample ID: 500-201900-1

Date Collected: 07/03/21 14:00

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 81.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 01:09	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 01:09	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 01:09	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 01:09	20
PCB-1248	0.49		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 01:09	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 01:09	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 01:09	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	88		49 - 129	07/06/21 17:13	07/07/21 01:09	20
<i>DCB Decachlorobiphenyl</i>	90		37 - 121	07/06/21 17:13	07/07/21 01:09	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW013N-2

Lab Sample ID: 500-201900-2

Date Collected: 07/03/21 14:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38	F1	0.38		mg/Kg	☼	07/06/21 17:13	07/07/21 01:24	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/06/21 17:13	07/07/21 01:24	20
PCB-1232	6.4		0.38		mg/Kg	☼	07/06/21 17:13	07/07/21 01:24	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/06/21 17:13	07/07/21 01:24	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/06/21 17:13	07/07/21 01:24	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/06/21 17:13	07/07/21 01:24	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/06/21 17:13	07/07/21 01:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		49 - 129	07/06/21 17:13	07/07/21 01:24	20
DCB Decachlorobiphenyl	91		37 - 121	07/06/21 17:13	07/07/21 01:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW050S-1

Lab Sample ID: 500-201900-3

Date Collected: 07/02/21 15:30

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 82.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 02:11	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 02:11	20
PCB-1232	4.4		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 02:11	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 02:11	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 02:11	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 02:11	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 02:11	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/06/21 17:13	07/07/21 02:11	20
DCB Decachlorobiphenyl	77		37 - 121	07/06/21 17:13	07/07/21 02:11	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW051N-1

Lab Sample ID: 500-201900-4

Date Collected: 07/02/21 15:32

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 70.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 02:26	20
PCB-1221	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 02:26	20
PCB-1232	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 02:26	20
PCB-1242	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 02:26	20
PCB-1248	1.9		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 02:26	20
PCB-1254	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 02:26	20
PCB-1260	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 02:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	07/06/21 17:13	07/07/21 02:26	20
DCB Decachlorobiphenyl	98		37 - 121	07/06/21 17:13	07/07/21 02:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW053N-1

Lab Sample ID: 500-201900-5

Date Collected: 07/02/21 15:40

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 84.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.0		2.0		mg/Kg	☼	07/06/21 17:13	07/07/21 08:42	100
PCB-1221	<2.0		2.0		mg/Kg	☼	07/06/21 17:13	07/07/21 08:42	100
PCB-1232	8.8		2.0		mg/Kg	☼	07/06/21 17:13	07/07/21 08:42	100
PCB-1242	<2.0		2.0		mg/Kg	☼	07/06/21 17:13	07/07/21 08:42	100
PCB-1248	<2.0		2.0		mg/Kg	☼	07/06/21 17:13	07/07/21 08:42	100
PCB-1254	<2.0		2.0		mg/Kg	☼	07/06/21 17:13	07/07/21 08:42	100
PCB-1260	<2.0		2.0		mg/Kg	☼	07/06/21 17:13	07/07/21 08:42	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	07/06/21 17:13	07/07/21 08:42	100
DCB Decachlorobiphenyl	154	S1+	37 - 121	07/06/21 17:13	07/07/21 08:42	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW055N-1

Lab Sample ID: 500-201900-6

Date Collected: 07/02/21 15:45

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 76.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 02:57	20
PCB-1221	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 02:57	20
PCB-1232	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 02:57	20
PCB-1242	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 02:57	20
PCB-1248	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 02:57	20
PCB-1254	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 02:57	20
PCB-1260	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 02:57	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/06/21 17:13	07/07/21 02:57	20
DCB Decachlorobiphenyl	89		37 - 121	07/06/21 17:13	07/07/21 02:57	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW057N-1

Lab Sample ID: 500-201900-7

Date Collected: 07/02/21 15:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 77.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	07/06/21 17:13	07/07/21 03:12	20
PCB-1221	<0.43		0.43		mg/Kg	☼	07/06/21 17:13	07/07/21 03:12	20
PCB-1232	<0.43		0.43		mg/Kg	☼	07/06/21 17:13	07/07/21 03:12	20
PCB-1242	<0.43		0.43		mg/Kg	☼	07/06/21 17:13	07/07/21 03:12	20
PCB-1248	<0.43		0.43		mg/Kg	☼	07/06/21 17:13	07/07/21 03:12	20
PCB-1254	<0.43		0.43		mg/Kg	☼	07/06/21 17:13	07/07/21 03:12	20
PCB-1260	<0.43		0.43		mg/Kg	☼	07/06/21 17:13	07/07/21 03:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	07/06/21 17:13	07/07/21 03:12	20
DCB Decachlorobiphenyl	96		37 - 121	07/06/21 17:13	07/07/21 03:12	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW062S-1

Lab Sample ID: 500-201900-8

Date Collected: 07/02/21 16:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 73.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.45		0.45		mg/Kg	☼	07/06/21 17:13	07/07/21 03:28	20
PCB-1221	<0.45		0.45		mg/Kg	☼	07/06/21 17:13	07/07/21 03:28	20
PCB-1232	<0.45		0.45		mg/Kg	☼	07/06/21 17:13	07/07/21 03:28	20
PCB-1242	<0.45		0.45		mg/Kg	☼	07/06/21 17:13	07/07/21 03:28	20
PCB-1248	0.55		0.45		mg/Kg	☼	07/06/21 17:13	07/07/21 03:28	20
PCB-1254	<0.45		0.45		mg/Kg	☼	07/06/21 17:13	07/07/21 03:28	20
PCB-1260	<0.45		0.45		mg/Kg	☼	07/06/21 17:13	07/07/21 03:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/06/21 17:13	07/07/21 03:28	20
DCB Decachlorobiphenyl	79		37 - 121	07/06/21 17:13	07/07/21 03:28	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW064S-1

Lab Sample ID: 500-201900-9

Date Collected: 07/02/21 16:15

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 81.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 07:40	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 07:40	20
PCB-1232	5.0		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 07:40	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 07:40	20
PCB-1248	2.4		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 07:40	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 07:40	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 07:40	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	51		49 - 129	07/06/21 17:13	07/07/21 07:40	20
DCB Decachlorobiphenyl	64		37 - 121	07/06/21 17:13	07/07/21 07:40	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW066S-1

Lab Sample ID: 500-201900-10

Date Collected: 07/03/21 06:30

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 83.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 03:59	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 03:59	20
PCB-1232	0.53		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 03:59	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 03:59	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 03:59	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 03:59	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/06/21 17:13	07/07/21 03:59	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	46	S1-	49 - 129	07/06/21 17:13	07/07/21 03:59	20
DCB Decachlorobiphenyl	73		37 - 121	07/06/21 17:13	07/07/21 03:59	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW067N-1

Lab Sample ID: 500-201900-11

Date Collected: 07/03/21 06:35

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 80.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:14	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:14	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:14	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:14	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:14	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:14	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:14	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	07/06/21 17:13	07/07/21 04:14	20
DCB Decachlorobiphenyl	89		37 - 121	07/06/21 17:13	07/07/21 04:14	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-079-1

Lab Sample ID: 500-201900-12

Date Collected: 07/03/21 06:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 80.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 04:30	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 04:30	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 04:30	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 04:30	20
PCB-1248	1.4		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 04:30	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 04:30	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/06/21 17:13	07/07/21 04:30	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	07/06/21 17:13	07/07/21 04:30	20
DCB Decachlorobiphenyl	78		37 - 121	07/06/21 17:13	07/07/21 04:30	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-090

Lab Sample ID: 500-201900-13

Date Collected: 07/03/21 08:45

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 78.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:45	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:45	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:45	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:45	20
PCB-1248	0.57		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:45	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:45	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 04:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	07/06/21 17:13	07/07/21 04:45	20
DCB Decachlorobiphenyl	93		37 - 121	07/06/21 17:13	07/07/21 04:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-091

Lab Sample ID: 500-201900-14

Date Collected: 07/03/21 08:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 88.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/06/21 17:13	07/07/21 05:01	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/06/21 17:13	07/07/21 05:01	20
PCB-1232	1.5		0.37		mg/Kg	☼	07/06/21 17:13	07/07/21 05:01	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/06/21 17:13	07/07/21 05:01	20
PCB-1248	0.64		0.37		mg/Kg	☼	07/06/21 17:13	07/07/21 05:01	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/06/21 17:13	07/07/21 05:01	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/06/21 17:13	07/07/21 05:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/06/21 17:13	07/07/21 05:01	20
DCB Decachlorobiphenyl	77		37 - 121	07/06/21 17:13	07/07/21 05:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-092

Lab Sample ID: 500-201900-15

Date Collected: 07/03/21 08:55

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 72.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.46		0.46		mg/Kg	☼	07/06/21 17:13	07/07/21 05:16	20
PCB-1221	<0.46		0.46		mg/Kg	☼	07/06/21 17:13	07/07/21 05:16	20
PCB-1232	2.2		0.46		mg/Kg	☼	07/06/21 17:13	07/07/21 05:16	20
PCB-1242	<0.46		0.46		mg/Kg	☼	07/06/21 17:13	07/07/21 05:16	20
PCB-1248	1.0		0.46		mg/Kg	☼	07/06/21 17:13	07/07/21 05:16	20
PCB-1254	<0.46		0.46		mg/Kg	☼	07/06/21 17:13	07/07/21 05:16	20
PCB-1260	<0.46		0.46		mg/Kg	☼	07/06/21 17:13	07/07/21 05:16	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	07/06/21 17:13	07/07/21 05:16	20
DCB Decachlorobiphenyl	67		37 - 121	07/06/21 17:13	07/07/21 05:16	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-093

Lab Sample ID: 500-201900-16

Date Collected: 07/03/21 09:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 74.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 05:31	20
PCB-1221	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 05:31	20
PCB-1232	0.76		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 05:31	20
PCB-1242	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 05:31	20
PCB-1248	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 05:31	20
PCB-1254	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 05:31	20
PCB-1260	<0.44		0.44		mg/Kg	☼	07/06/21 17:13	07/07/21 05:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	07/06/21 17:13	07/07/21 05:31	20
DCB Decachlorobiphenyl	57		37 - 121	07/06/21 17:13	07/07/21 05:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-094

Lab Sample ID: 500-201900-17

Date Collected: 07/03/21 09:15

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 79.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 05:47	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 05:47	20
PCB-1232	2.3		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 05:47	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 05:47	20
PCB-1248	1.5		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 05:47	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 05:47	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 05:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	07/06/21 17:13	07/07/21 05:47	20
DCB Decachlorobiphenyl	88		37 - 121	07/06/21 17:13	07/07/21 05:47	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-095

Lab Sample ID: 500-201900-18

Date Collected: 07/03/21 09:45

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 63.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.52		0.52		mg/Kg	☼	07/06/21 17:13	07/07/21 06:02	20
PCB-1221	<0.52		0.52		mg/Kg	☼	07/06/21 17:13	07/07/21 06:02	20
PCB-1232	4.6		0.52		mg/Kg	☼	07/06/21 17:13	07/07/21 06:02	20
PCB-1242	<0.52		0.52		mg/Kg	☼	07/06/21 17:13	07/07/21 06:02	20
PCB-1248	4.5		0.52		mg/Kg	☼	07/06/21 17:13	07/07/21 06:02	20
PCB-1254	<0.52		0.52		mg/Kg	☼	07/06/21 17:13	07/07/21 06:02	20
PCB-1260	<0.52		0.52		mg/Kg	☼	07/06/21 17:13	07/07/21 06:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	07/06/21 17:13	07/07/21 06:02	20
DCB Decachlorobiphenyl	68		37 - 121	07/06/21 17:13	07/07/21 06:02	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-096

Lab Sample ID: 500-201900-19

Date Collected: 07/03/21 09:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 71.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 06:18	20
PCB-1221	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 06:18	20
PCB-1232	2.9		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 06:18	20
PCB-1242	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 06:18	20
PCB-1248	3.3		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 06:18	20
PCB-1254	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 06:18	20
PCB-1260	<0.47		0.47		mg/Kg	☼	07/06/21 17:13	07/07/21 06:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	07/06/21 17:13	07/07/21 06:18	20
DCB Decachlorobiphenyl	69		37 - 121	07/06/21 17:13	07/07/21 06:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-097

Lab Sample ID: 500-201900-20

Date Collected: 07/03/21 10:05

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 77.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 07:56	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 07:56	20
PCB-1232	3.4		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 07:56	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 07:56	20
PCB-1248	1.8		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 07:56	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 07:56	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/06/21 17:13	07/07/21 07:56	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	07/06/21 17:13	07/07/21 07:56	20
DCB Decachlorobiphenyl	81		37 - 121	07/06/21 17:13	07/07/21 07:56	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

GC Semi VOA

Prep Batch: 607966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-1	ED-R1SD-021-3	Total/NA	Solid	3541	
500-201900-2	ED-R1SD-SW013N-2	Total/NA	Solid	3541	
500-201900-3	ED-R1SD-SW050S-1	Total/NA	Solid	3541	
500-201900-4	ED-R1SD-SW051N-1	Total/NA	Solid	3541	
500-201900-5	ED-R1SD-SW053N-1	Total/NA	Solid	3541	
500-201900-6	ED-R1SD-SW055N-1	Total/NA	Solid	3541	
500-201900-7	ED-R1SD-SW057N-1	Total/NA	Solid	3541	
500-201900-8	ED-R1SD-SW062S-1	Total/NA	Solid	3541	
500-201900-9	ED-R1SD-SW064S-1	Total/NA	Solid	3541	
500-201900-10	ED-R1SD-SW066S-1	Total/NA	Solid	3541	
500-201900-11	ED-R1SD-SW067N-1	Total/NA	Solid	3541	
500-201900-12	ED-R1SD-079-1	Total/NA	Solid	3541	
500-201900-13	ED-R1SD-090	Total/NA	Solid	3541	
500-201900-14	ED-R1SD-091	Total/NA	Solid	3541	
500-201900-15	ED-R1SD-092	Total/NA	Solid	3541	
500-201900-16	ED-R1SD-093	Total/NA	Solid	3541	
500-201900-17	ED-R1SD-094	Total/NA	Solid	3541	
500-201900-18	ED-R1SD-095	Total/NA	Solid	3541	
500-201900-19	ED-R1SD-096	Total/NA	Solid	3541	
500-201900-20	ED-R1SD-097	Total/NA	Solid	3541	
MB 500-607966/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-607966/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201900-2 MS	ED-R1SD-SW013N-2	Total/NA	Solid	3541	
500-201900-2 MSD	ED-R1SD-SW013N-2	Total/NA	Solid	3541	

Analysis Batch: 607993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-1	ED-R1SD-021-3	Total/NA	Solid	8082A	607966
500-201900-2	ED-R1SD-SW013N-2	Total/NA	Solid	8082A	607966
500-201900-3	ED-R1SD-SW050S-1	Total/NA	Solid	8082A	607966
500-201900-4	ED-R1SD-SW051N-1	Total/NA	Solid	8082A	607966
500-201900-5	ED-R1SD-SW053N-1	Total/NA	Solid	8082A	607966
500-201900-6	ED-R1SD-SW055N-1	Total/NA	Solid	8082A	607966
500-201900-7	ED-R1SD-SW057N-1	Total/NA	Solid	8082A	607966
500-201900-8	ED-R1SD-SW062S-1	Total/NA	Solid	8082A	607966
500-201900-9	ED-R1SD-SW064S-1	Total/NA	Solid	8082A	607966
500-201900-10	ED-R1SD-SW066S-1	Total/NA	Solid	8082A	607966
500-201900-11	ED-R1SD-SW067N-1	Total/NA	Solid	8082A	607966
500-201900-12	ED-R1SD-079-1	Total/NA	Solid	8082A	607966
500-201900-13	ED-R1SD-090	Total/NA	Solid	8082A	607966
500-201900-14	ED-R1SD-091	Total/NA	Solid	8082A	607966
500-201900-15	ED-R1SD-092	Total/NA	Solid	8082A	607966
500-201900-16	ED-R1SD-093	Total/NA	Solid	8082A	607966
500-201900-17	ED-R1SD-094	Total/NA	Solid	8082A	607966
500-201900-18	ED-R1SD-095	Total/NA	Solid	8082A	607966
500-201900-19	ED-R1SD-096	Total/NA	Solid	8082A	607966
500-201900-20	ED-R1SD-097	Total/NA	Solid	8082A	607966
MB 500-607966/1-A	Method Blank	Total/NA	Solid	8082A	607966
LCS 500-607966/2-A	Lab Control Sample	Total/NA	Solid	8082A	607966
500-201900-2 MS	ED-R1SD-SW013N-2	Total/NA	Solid	8082A	607966
500-201900-2 MSD	ED-R1SD-SW013N-2	Total/NA	Solid	8082A	607966

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

General Chemistry

Analysis Batch: 607958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-1	ED-R1SD-021-3	Total/NA	Solid	Moisture	
500-201900-2	ED-R1SD-SW013N-2	Total/NA	Solid	Moisture	
500-201900-3	ED-R1SD-SW050S-1	Total/NA	Solid	Moisture	
500-201900-4	ED-R1SD-SW051N-1	Total/NA	Solid	Moisture	
500-201900-5	ED-R1SD-SW053N-1	Total/NA	Solid	Moisture	
500-201900-6	ED-R1SD-SW055N-1	Total/NA	Solid	Moisture	
500-201900-7	ED-R1SD-SW057N-1	Total/NA	Solid	Moisture	
500-201900-8	ED-R1SD-SW062S-1	Total/NA	Solid	Moisture	
500-201900-9	ED-R1SD-SW064S-1	Total/NA	Solid	Moisture	
500-201900-10	ED-R1SD-SW066S-1	Total/NA	Solid	Moisture	
500-201900-11	ED-R1SD-SW067N-1	Total/NA	Solid	Moisture	
500-201900-12	ED-R1SD-079-1	Total/NA	Solid	Moisture	
500-201900-13	ED-R1SD-090	Total/NA	Solid	Moisture	
500-201900-14	ED-R1SD-091	Total/NA	Solid	Moisture	
500-201900-15	ED-R1SD-092	Total/NA	Solid	Moisture	
500-201900-16	ED-R1SD-093	Total/NA	Solid	Moisture	
500-201900-17	ED-R1SD-094	Total/NA	Solid	Moisture	
500-201900-18	ED-R1SD-095	Total/NA	Solid	Moisture	
500-201900-19	ED-R1SD-096	Total/NA	Solid	Moisture	
500-201900-20	ED-R1SD-097	Total/NA	Solid	Moisture	
500-201900-3 DU	ED-R1SD-SW050S-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-201900-1	ED-R1SD-021-3	88	90
500-201900-2	ED-R1SD-SW013N-2	79	91
500-201900-2 MS	ED-R1SD-SW013N-2	76	86
500-201900-2 MSD	ED-R1SD-SW013N-2	75	87
500-201900-3	ED-R1SD-SW050S-1	75	77
500-201900-4	ED-R1SD-SW051N-1	87	98
500-201900-5	ED-R1SD-SW053N-1	71	154 S1+
500-201900-6	ED-R1SD-SW055N-1	67	89
500-201900-7	ED-R1SD-SW057N-1	68	96
500-201900-8	ED-R1SD-SW062S-1	60	79
500-201900-9	ED-R1SD-SW064S-1	51	64
500-201900-10	ED-R1SD-SW066S-1	46 S1-	73
500-201900-11	ED-R1SD-SW067N-1	61	89
500-201900-12	ED-R1SD-079-1	56	78
500-201900-13	ED-R1SD-090	84	93
500-201900-14	ED-R1SD-091	69	77
500-201900-15	ED-R1SD-092	61	67
500-201900-16	ED-R1SD-093	61	57
500-201900-17	ED-R1SD-094	89	88
500-201900-18	ED-R1SD-095	68	68
500-201900-19	ED-R1SD-096	70	69
500-201900-20	ED-R1SD-097	71	81
LCS 500-607966/2-A	Lab Control Sample	87	90
MB 500-607966/1-A	Method Blank	92	89

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-607966/1-A
Matrix: Solid
Analysis Batch: 607993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 607966

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		07/06/21 17:13	07/07/21 00:38	20
PCB-1221	<0.33		0.33		mg/Kg		07/06/21 17:13	07/07/21 00:38	20
PCB-1232	<0.33		0.33		mg/Kg		07/06/21 17:13	07/07/21 00:38	20
PCB-1242	<0.33		0.33		mg/Kg		07/06/21 17:13	07/07/21 00:38	20
PCB-1248	<0.33		0.33		mg/Kg		07/06/21 17:13	07/07/21 00:38	20
PCB-1254	<0.33		0.33		mg/Kg		07/06/21 17:13	07/07/21 00:38	20
PCB-1260	<0.33		0.33		mg/Kg		07/06/21 17:13	07/07/21 00:38	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	92		49 - 129	07/06/21 17:13	07/07/21 00:38	20
DCB Decachlorobiphenyl	89		37 - 121	07/06/21 17:13	07/07/21 00:38	20

Lab Sample ID: LCS 500-607966/2-A
Matrix: Solid
Analysis Batch: 607993

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 607966

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.51		mg/Kg		91	57 - 120
PCB-1260	1.67	1.69		mg/Kg		102	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	87		49 - 129
DCB Decachlorobiphenyl	90		37 - 121

Lab Sample ID: 500-201900-2 MS
Matrix: Solid
Analysis Batch: 607993

Client Sample ID: ED-R1SD-SW013N-2
Prep Type: Total/NA
Prep Batch: 607966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.38	F1	1.90	7.24	E F1	mg/Kg	☼	381	57 - 120
PCB-1260	<0.38		1.90	1.70		mg/Kg	☼	89	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	76		49 - 129
DCB Decachlorobiphenyl	86		37 - 121

Lab Sample ID: 500-201900-2 MSD
Matrix: Solid
Analysis Batch: 607993

Client Sample ID: ED-R1SD-SW013N-2
Prep Type: Total/NA
Prep Batch: 607966

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.38	F1	1.90	6.82	E F1	mg/Kg	☼	359	57 - 120	28	30
PCB-1260	<0.38		1.90	1.71		mg/Kg	☼	90	61 - 125	3	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	75		49 - 129
DCB Decachlorobiphenyl	87		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-021-3

Date Collected: 07/03/21 14:00

Date Received: 07/06/21 15:00

Lab Sample ID: 500-201900-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-021-3

Date Collected: 07/03/21 14:00

Date Received: 07/06/21 15:00

Lab Sample ID: 500-201900-1

Matrix: Solid

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 01:09	SS	TAL CHI

Client Sample ID: ED-R1SD-SW013N-2

Date Collected: 07/03/21 14:10

Date Received: 07/06/21 15:00

Lab Sample ID: 500-201900-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW013N-2

Date Collected: 07/03/21 14:10

Date Received: 07/06/21 15:00

Lab Sample ID: 500-201900-2

Matrix: Solid

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 01:24	SS	TAL CHI

Client Sample ID: ED-R1SD-SW050S-1

Date Collected: 07/02/21 15:30

Date Received: 07/06/21 15:00

Lab Sample ID: 500-201900-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW050S-1

Date Collected: 07/02/21 15:30

Date Received: 07/06/21 15:00

Lab Sample ID: 500-201900-3

Matrix: Solid

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 02:11	SS	TAL CHI

Client Sample ID: ED-R1SD-SW051N-1

Date Collected: 07/02/21 15:32

Date Received: 07/06/21 15:00

Lab Sample ID: 500-201900-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW051N-1

Lab Sample ID: 500-201900-4

Date Collected: 07/02/21 15:32

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 70.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 02:26	SS	TAL CHI

Client Sample ID: ED-R1SD-SW053N-1

Lab Sample ID: 500-201900-5

Date Collected: 07/02/21 15:40

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW053N-1

Lab Sample ID: 500-201900-5

Date Collected: 07/02/21 15:40

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		100	607993	07/07/21 08:42	SS	TAL CHI

Client Sample ID: ED-R1SD-SW055N-1

Lab Sample ID: 500-201900-6

Date Collected: 07/02/21 15:45

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW055N-1

Lab Sample ID: 500-201900-6

Date Collected: 07/02/21 15:45

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 02:57	SS	TAL CHI

Client Sample ID: ED-R1SD-SW057N-1

Lab Sample ID: 500-201900-7

Date Collected: 07/02/21 15:50

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW057N-1

Lab Sample ID: 500-201900-7

Date Collected: 07/02/21 15:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 03:12	SS	TAL CHI

Client Sample ID: ED-R1SD-SW062S-1

Lab Sample ID: 500-201900-8

Date Collected: 07/02/21 16:10

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW062S-1

Lab Sample ID: 500-201900-8

Date Collected: 07/02/21 16:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 73.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 03:28	SS	TAL CHI

Client Sample ID: ED-R1SD-SW064S-1

Lab Sample ID: 500-201900-9

Date Collected: 07/02/21 16:15

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW064S-1

Lab Sample ID: 500-201900-9

Date Collected: 07/02/21 16:15

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 81.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 07:40	SS	TAL CHI

Client Sample ID: ED-R1SD-SW066S-1

Lab Sample ID: 500-201900-10

Date Collected: 07/03/21 06:30

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-SW066S-1

Lab Sample ID: 500-201900-10

Date Collected: 07/03/21 06:30

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 03:59	SS	TAL CHI

Client Sample ID: ED-R1SD-SW067N-1

Lab Sample ID: 500-201900-11

Date Collected: 07/03/21 06:35

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW067N-1

Lab Sample ID: 500-201900-11

Date Collected: 07/03/21 06:35

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 04:14	SS	TAL CHI

Client Sample ID: ED-R1SD-079-1

Lab Sample ID: 500-201900-12

Date Collected: 07/03/21 06:50

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-079-1

Lab Sample ID: 500-201900-12

Date Collected: 07/03/21 06:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 04:30	SS	TAL CHI

Client Sample ID: ED-R1SD-090

Lab Sample ID: 500-201900-13

Date Collected: 07/03/21 08:45

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-090

Lab Sample ID: 500-201900-13

Date Collected: 07/03/21 08:45

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 78.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 04:45	SS	TAL CHI

Client Sample ID: ED-R1SD-091

Lab Sample ID: 500-201900-14

Date Collected: 07/03/21 08:50

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-091

Lab Sample ID: 500-201900-14

Date Collected: 07/03/21 08:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 05:01	SS	TAL CHI

Client Sample ID: ED-R1SD-092

Lab Sample ID: 500-201900-15

Date Collected: 07/03/21 08:55

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-092

Lab Sample ID: 500-201900-15

Date Collected: 07/03/21 08:55

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 72.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 05:16	SS	TAL CHI

Client Sample ID: ED-R1SD-093

Lab Sample ID: 500-201900-16

Date Collected: 07/03/21 09:10

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-093

Lab Sample ID: 500-201900-16

Date Collected: 07/03/21 09:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 74.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 05:31	SS	TAL CHI

Client Sample ID: ED-R1SD-094

Lab Sample ID: 500-201900-17

Date Collected: 07/03/21 09:15

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-094

Lab Sample ID: 500-201900-17

Date Collected: 07/03/21 09:15

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 05:47	SS	TAL CHI

Client Sample ID: ED-R1SD-095

Lab Sample ID: 500-201900-18

Date Collected: 07/03/21 09:45

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-095

Lab Sample ID: 500-201900-18

Date Collected: 07/03/21 09:45

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 63.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 06:02	SS	TAL CHI

Client Sample ID: ED-R1SD-096

Lab Sample ID: 500-201900-19

Date Collected: 07/03/21 09:50

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Client Sample ID: ED-R1SD-096

Lab Sample ID: 500-201900-19

Date Collected: 07/03/21 09:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 71.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 06:18	SS	TAL CHI

Client Sample ID: ED-R1SD-097

Lab Sample ID: 500-201900-20

Date Collected: 07/03/21 10:05

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607958	07/06/21 16:35	LWN	TAL CHI

Client Sample ID: ED-R1SD-097

Lab Sample ID: 500-201900-20

Date Collected: 07/03/21 10:05

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 77.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			607966	07/06/21 17:13	ACK	TAL CHI
Total/NA	Analysis	8082A		20	607993	07/07/21 07:56	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



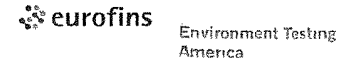
Environment Testing
 America

Client Information		Sampler: F. SORGENSEN	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4																																		
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page 4 2 of 4																																		
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested																																				
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:	<table border="1"> <tr> <td colspan="2">Job #:</td> </tr> <tr> <td colspan="2">500-201900</td> </tr> <tr> <td colspan="2">Preservation Codes</td> </tr> <tr> <td>A - HCL</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D - Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4-5</td> </tr> <tr> <td>L - EDA</td> <td>Z - other (specify)</td> </tr> <tr> <td colspan="2">Other</td> </tr> <tr> <td colspan="2"> </td> </tr> </table>			Job #:		500-201900		Preservation Codes		A - HCL	M - Hexane	B - NaOH	N - None	C - Zn Acetate	O - AsNaO2	D - Nitric Acid	P - Na2O4S	E - NaHSO4	Q - Na2SO3	F - MeOH	R - Na2S2O3	G - Amchlor	S - H2SO4	H - Ascorbic Acid	T - TSP Dodecahydrate	I - Ice	U - Acetone	J - DI Water	V - MCAA	K - EDTA	W - pH 4-5	L - EDA	Z - other (specify)	Other			
Job #:																																							
500-201900																																							
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K - EDTA	W - pH 4-5																																						
L - EDA	Z - other (specify)																																						
Other																																							
City: Knoxville		TAT Requested (days): RUSH 24HR																																					
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																																					
Phone: 865-340-4914(Tel)		PO #:																																					
Email: jrickfordobrien@cecinc.com		Purchase Order not required																																					
Project Name: Arconic PCB Rush Project - Lafayette, IN		WO #:																																					
Site:		Project #: 50019033																																					
		SSOW#:																																					
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note:																													
					Preservation Code:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																															
12	ED-RISD-079-1	7/3/21	0650	C	S	X	X	X	1	Priority																													
13	ED-RISD-090	7/3/21	0845	C	S	X	X	X	1																														
14	EP-RISD-091	7/3/21	0850	C	S	X	X	X	1																														
15	ED-RISD-092	7/3/21	0855	C	S	X	X	X	1																														
16	ED-RISD-093	7/3/21	0910	C	S	X	X	X	1																														
17	ED-RISD-094	7/3/21	0915	C	S	X	X	X	1																														
18	ED-RISD-095	7/3/21	0945	C	S	X	X	X	1																														
19	ED-RISD-096	7/3/21	0950	C	S	X	X	X	1																														
20	ED-RISD-097	7/3/21	1005	C	S	X	X	X	1																														
21	ED-RISD-098	7/3/21	1020	C	S	X	X	X	1																														
22	ED-RISD-099	7/3/21	1045	C	S	X	X	X	1																														
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																																	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																	
Deliverable Requested <input checked="" type="checkbox"/> I, <input checked="" type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)						Special Instructions/QC Requirements																																	
Empty Kit Relinquished by			Date		Time		Method of Shipment:																																
Relinquished by: <i>[Signature]</i>		Date/Time: 7/3/21		Company: CEC		Received by:		Date/Time:		Company:																													
Relinquished by: <i>[Signature]</i>		Date/Time: 7/6/21		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1345		Company: ERT																													
Relinquished by: <i>[Signature]</i>		Date/Time: 7/6/21 1500		Company: ERT		Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1500		Company: ERT																													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:																																			

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



Client Information		Sampler: BOURGENSEN	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4					
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page 4 3 of 4					
Company: Civil & Environmental Consultants Inc			PWSID:	Analysis Requested						
Address: 2704 Cherokee Farm Way Suite 101			Due Date Requested:		Job #: 500-201900					
City: Knoxville			TAT Requested (days): RUSH 24HR		Preservation Codes A HCL M - Hexane B NaOH N None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:					
State, Zip: TN, 37920			Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 865-340-4914(Tel)			PO #:							
Email: jrickfordobrien@cecinc.com			Purchase Order not required							
Project Name: Arconic PCB Rush Project - Lafayette, IN			WO #:							
Site:			Project #: 50019033		Total Number of containers					
			SSOW#:							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Special Instructions/Note	
		Preservation Code:		X	X	N				
23	ED-RISD-SW082 ED-RISD-SW082S	7/3/21	1110	C	S	X	X		1	
24	ED-RISD-SW083N (MS/MSD)	7/3/21	1115	C	S	X	X		3	
25	ED-RISD-SW084S	7/3/21	1120	C	S	X	X		1	
26	ED-RISD-SW085W	7/3/21	1125	C	S	X	X		1	
27	ED-RISD-SW086S	7/3/21	1150	C	S	X	X		1	
28	ED-RISD-SW087N	7/3/21	1155	C	S	X	X		1	
29	ED-RISD-SW088S	7/3/21	1205	C	S	X	X		1	
30	ED-RISD-SW089N	7/3/21	1215	C	S	X	X		1	
31	ED-RISD-SW090S	7/3/21	1240	C	S	X	X		1	
32	ED-RISD-SW091N	7/3/21	1255	C	S	X	X		1	
33	ED-RISD-SW092S	7/3/21	1305	C	S	X	X		1	
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I, II, III, IV, Other (specify)				Special Instructions/QC Requirements						
Empty Kit Relinquished by		Date		Time		Method of Shipment:				
Relinquished by: <i>[Signature]</i>		Date/Time: 7/3/21		Company: CEL		Received by:		Date/Time:		Company:
Relinquished by: <i>[Signature]</i>		Date/Time: 7/6/21		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1345		Company: <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>		Date/Time: 7/6/21 1500		Company: EIA		Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1500		Company: <i>[Signature]</i>
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:		7/8/2021 (Rev. 1)				

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: FJORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4											
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin:		Page 4 of 4 4 of 4											
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: 500-201900									
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of Containers		Preservation Codes							
City: Knoxville		TAT Requested (days): RUSH 24HR										A HCL		M - Hexane					
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No										B NaOH		N None					
Phone: 865-340-4914(Tel)		PO #:										C - Zn Acetate		O - AsNaO2					
Email: jrnickfordobrien@cecinc.com		Purchase Order not required		D - Nitric Acid		P Na2O4S		E - NaHSO4		Q - Na2SO3		F - MeOH		R Na2S2O3					
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		G - Amchlor		S H2SO4		H - Ascorbic Acid		T TSP Dodecahydrate		I - Ice		U Acetone					
Site:		SSOW#:		J DI Water		V - MCAA		K EDTA		W pH 4-5		L - EDA		Z other (specify)					
Other:				Matrix (W=water, S=solid, O=waste/soil, BT=Tissue A=Air)															
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Preservation Code:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of Containers		Special Instructions/Note	
34 ED-RISD-SW093N		7/3/21		1330		C S				X		X		N		1			
35 ED-RISD-SWDUP6		7/3/21		1110		C S				X		X		N		1			
36 ED-RISD-EB13		7/3/21		1500		G W				X		X		N		2			
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months													
Deliverable Requested I, II, III, IV, Other (specify)				Special Instructions/QC Requirements															
Empty Kit Relinquished by		Date		Time		Method of Shipment:													
Relinquished by: [Signature]		Date/Time: 7/3/21		Company: CEC		Received by: [Signature]		Date/Time:		Company:									
Relinquished by: [Signature]		Date/Time: 7/6/21		Company: CEC		Received by: [Signature]		Date/Time: 7/6/21 1345		Company: [Signature]									
Relinquished by: [Signature]		Date/Time: 7/6/21 1500		Company: EST		Received by: [Signature]		Date/Time: 7/6/21 1500		Company: [Signature]									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No				Cooler Temperature(s) °C and Other Remarks:													

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201900-1

Login Number: 201900

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201900-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/8/2021 3:42:37 PM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Job ID: 500-201900-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201900-2

Comments

No additional comments.

Receipt

The samples were received on 7/6/2021 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

Received 2 bottles for samples 25 & 26, COC has 1.

GC Semi VOA

Method 8082A: Surrogate TMX Tetrachloro-m-xylene recovery for the following sample was outside control limits: ED-R1SD-SW092S (500-201900-33). The other surrogate was within limits and the sample is non-detect for the target analytes; therefore, re-analysis was not performed.

Method 8082A: Surrogate Tetrachloro-m-xylene (TMX) recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-608250/3). The other surrogate was within limits and both of the surrogates were within limits on the primary column which shows the extraction process was done correctly ; therefore, re-analysis was not performed.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-099 (500-201900-22), ED-R1SD-SW083N (500-201900-24), ED-R1SD-SW087N (500-201900-28), ED-R1SD-SW089N (500-201900-30) and ED-R1SD-SW091N (500-201900-32).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-098 (500-201900-21), ED-R1SD-099 (500-201900-22), ED-R1SD-SW083N (500-201900-24), ED-R1SD-SW083N (500-201900-24[MSJ]), ED-R1SD-SW083N (500-201900-24[MSD]), ED-R1SD-SW087N (500-201900-28), ED-R1SD-SW089N (500-201900-30), ED-R1SD-SW091N (500-201900-32) and ED-R1SD-SW093N (500-201900-34). The reagent lot number used was: Z07G073.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclors: PCB-1232 and PCB-1248 ED-R1SD-098 (500-201900-21).

Method 8082A: The following sample required a dilution due to the nature of the sample matrix: ED-R1SD-SW091N (500-201900-32). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-098

Lab Sample ID: 500-201900-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	6.4		0.44		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	3.9		0.44		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-099

Lab Sample ID: 500-201900-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.6		0.43		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW082S

Lab Sample ID: 500-201900-23

No Detections.

Client Sample ID: ED-R1SD-SW083N

Lab Sample ID: 500-201900-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.49		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW084S

Lab Sample ID: 500-201900-25

No Detections.

Client Sample ID: ED-R1SD-SW085N

Lab Sample ID: 500-201900-26

No Detections.

Client Sample ID: ED-R1SD-SW086S

Lab Sample ID: 500-201900-27

No Detections.

Client Sample ID: ED-R1SD-SW087N

Lab Sample ID: 500-201900-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.7		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW088S

Lab Sample ID: 500-201900-29

No Detections.

Client Sample ID: ED-R1SD-SW089N

Lab Sample ID: 500-201900-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.2		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW090S

Lab Sample ID: 500-201900-31

No Detections.

Client Sample ID: ED-R1SD-SW091N

Lab Sample ID: 500-201900-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	7.4		2.2		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW092S

Lab Sample ID: 500-201900-33

No Detections.

Client Sample ID: ED-R1SD-SW093N

Lab Sample ID: 500-201900-34

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SWDUP6

Lab Sample ID: 500-201900-35

No Detections.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201900-21	ED-R1SD-098	Solid	07/03/21 10:20	07/06/21 15:00	
500-201900-22	ED-R1SD-099	Solid	07/03/21 10:45	07/06/21 15:00	
500-201900-23	ED-R1SD-SW082S	Solid	07/03/21 11:10	07/06/21 15:00	
500-201900-24	ED-R1SD-SW083N	Solid	07/03/21 11:15	07/06/21 15:00	
500-201900-25	ED-R1SD-SW084S	Solid	07/03/21 11:20	07/06/21 15:00	
500-201900-26	ED-R1SD-SW085N	Solid	07/03/21 11:25	07/06/21 15:00	
500-201900-27	ED-R1SD-SW086S	Solid	07/03/21 11:50	07/06/21 15:00	
500-201900-28	ED-R1SD-SW087N	Solid	07/03/21 11:55	07/06/21 15:00	
500-201900-29	ED-R1SD-SW088S	Solid	07/03/21 12:05	07/06/21 15:00	
500-201900-30	ED-R1SD-SW089N	Solid	07/03/21 12:15	07/06/21 15:00	
500-201900-31	ED-R1SD-SW090S	Solid	07/03/21 12:40	07/06/21 15:00	
500-201900-32	ED-R1SD-SW091N	Solid	07/03/21 12:55	07/06/21 15:00	
500-201900-33	ED-R1SD-SW092S	Solid	07/03/21 13:05	07/06/21 15:00	
500-201900-34	ED-R1SD-SW093N	Solid	07/03/21 13:30	07/06/21 15:00	
500-201900-35	ED-R1SD-SWDUP6	Solid	07/03/21 11:10	07/06/21 15:00	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-098

Lab Sample ID: 500-201900-21

Date Collected: 07/03/21 10:20

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 76.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.44		0.44		mg/Kg	☼	07/07/21 16:39	07/08/21 10:53	20
PCB-1221	<0.44		0.44		mg/Kg	☼	07/07/21 16:39	07/08/21 10:53	20
PCB-1232	6.4		0.44		mg/Kg	☼	07/07/21 16:39	07/08/21 10:53	20
PCB-1242	<0.44		0.44		mg/Kg	☼	07/07/21 16:39	07/08/21 10:53	20
PCB-1248	3.9		0.44		mg/Kg	☼	07/07/21 16:39	07/08/21 10:53	20
PCB-1254	<0.44		0.44		mg/Kg	☼	07/07/21 16:39	07/08/21 10:53	20
PCB-1260	<0.44		0.44		mg/Kg	☼	07/07/21 16:39	07/08/21 10:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		49 - 129	07/07/21 16:39	07/08/21 10:53	20
DCB Decachlorobiphenyl	86		37 - 121	07/07/21 16:39	07/08/21 10:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-099

Lab Sample ID: 500-201900-22

Date Collected: 07/03/21 10:45

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 75.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 11:09	20
PCB-1221	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 11:09	20
PCB-1232	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 11:09	20
PCB-1242	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 11:09	20
PCB-1248	1.6		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 11:09	20
PCB-1254	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 11:09	20
PCB-1260	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 11:09	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	73		49 - 129	07/07/21 16:39	07/08/21 11:09	20
<i>DCB Decachlorobiphenyl</i>	70		37 - 121	07/07/21 16:39	07/08/21 11:09	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW082S

Lab Sample ID: 500-201900-23

Date Collected: 07/03/21 11:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 81.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 05:45	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 05:45	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 05:45	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 05:45	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 05:45	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 05:45	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 05:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	07/07/21 16:39	07/08/21 05:45	20
DCB Decachlorobiphenyl	64		37 - 121	07/07/21 16:39	07/08/21 05:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW083N

Lab Sample ID: 500-201900-24

Date Collected: 07/03/21 11:15

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 11:24	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 11:24	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 11:24	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 11:24	20
PCB-1248	0.49		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 11:24	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 11:24	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 11:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/07/21 16:39	07/08/21 11:24	20
DCB Decachlorobiphenyl	73		37 - 121	07/07/21 16:39	07/08/21 11:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW084S

Lab Sample ID: 500-201900-25

Date Collected: 07/03/21 11:20

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 06:47	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 06:47	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 06:47	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 06:47	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 06:47	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 06:47	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 06:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/07/21 16:39	07/08/21 06:47	20
DCB Decachlorobiphenyl	62		37 - 121	07/07/21 16:39	07/08/21 06:47	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW085N

Lab Sample ID: 500-201900-26

Date Collected: 07/03/21 11:25

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 79.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 07:02	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 07:02	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 07:02	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 07:02	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 07:02	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 07:02	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 07:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		49 - 129	07/07/21 16:39	07/08/21 07:02	20
DCB Decachlorobiphenyl	48		37 - 121	07/07/21 16:39	07/08/21 07:02	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW086S

Lab Sample ID: 500-201900-27

Date Collected: 07/03/21 11:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 74.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.45		0.45		mg/Kg	☼	07/07/21 16:39	07/08/21 07:18	20
PCB-1221	<0.45		0.45		mg/Kg	☼	07/07/21 16:39	07/08/21 07:18	20
PCB-1232	<0.45		0.45		mg/Kg	☼	07/07/21 16:39	07/08/21 07:18	20
PCB-1242	<0.45		0.45		mg/Kg	☼	07/07/21 16:39	07/08/21 07:18	20
PCB-1248	<0.45		0.45		mg/Kg	☼	07/07/21 16:39	07/08/21 07:18	20
PCB-1254	<0.45		0.45		mg/Kg	☼	07/07/21 16:39	07/08/21 07:18	20
PCB-1260	<0.45		0.45		mg/Kg	☼	07/07/21 16:39	07/08/21 07:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	51		49 - 129	07/07/21 16:39	07/08/21 07:18	20
DCB Decachlorobiphenyl	63		37 - 121	07/07/21 16:39	07/08/21 07:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW087N

Lab Sample ID: 500-201900-28

Date Collected: 07/03/21 11:55

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 82.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:11	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:11	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:11	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:11	20
PCB-1248	2.7		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:11	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:11	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:11	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/07/21 16:39	07/08/21 12:11	20
DCB Decachlorobiphenyl	82		37 - 121	07/07/21 16:39	07/08/21 12:11	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW088S

Lab Sample ID: 500-201900-29

Date Collected: 07/03/21 12:05

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 07:48	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 07:48	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 07:48	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 07:48	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 07:48	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 07:48	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 07:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	07/07/21 16:39	07/08/21 07:48	20
DCB Decachlorobiphenyl	77		37 - 121	07/07/21 16:39	07/08/21 07:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW089N

Lab Sample ID: 500-201900-30

Date Collected: 07/03/21 12:15

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 81.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:26	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:26	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:26	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:26	20
PCB-1248	1.2		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:26	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:26	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/07/21 16:39	07/08/21 12:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	07/07/21 16:39	07/08/21 12:26	20
DCB Decachlorobiphenyl	73		37 - 121	07/07/21 16:39	07/08/21 12:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW090S

Lab Sample ID: 500-201900-31

Date Collected: 07/03/21 12:40

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 84.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:19	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:19	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:19	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:19	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:19	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:19	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	55		49 - 129	07/07/21 16:39	07/08/21 08:19	20
DCB Decachlorobiphenyl	58		37 - 121	07/07/21 16:39	07/08/21 08:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW091N

Lab Sample ID: 500-201900-32

Date Collected: 07/03/21 12:55

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 74.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.2		2.2		mg/Kg	☼	07/07/21 16:39	07/08/21 13:43	100
PCB-1221	<2.2		2.2		mg/Kg	☼	07/07/21 16:39	07/08/21 13:43	100
PCB-1232	<2.2		2.2		mg/Kg	☼	07/07/21 16:39	07/08/21 13:43	100
PCB-1242	<2.2		2.2		mg/Kg	☼	07/07/21 16:39	07/08/21 13:43	100
PCB-1248	7.4		2.2		mg/Kg	☼	07/07/21 16:39	07/08/21 13:43	100
PCB-1254	<2.2		2.2		mg/Kg	☼	07/07/21 16:39	07/08/21 13:43	100
PCB-1260	<2.2		2.2		mg/Kg	☼	07/07/21 16:39	07/08/21 13:43	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	D	49 - 129	07/07/21 16:39	07/08/21 13:43	100
DCB Decachlorobiphenyl	0	D	37 - 121	07/07/21 16:39	07/08/21 13:43	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW092S

Lab Sample ID: 500-201900-33

Date Collected: 07/03/21 13:05

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 85.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:50	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:50	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:50	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:50	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:50	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:50	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/07/21 16:39	07/08/21 08:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	28	S1-	49 - 129	07/07/21 16:39	07/08/21 08:50	20
DCB Decachlorobiphenyl	38		37 - 121	07/07/21 16:39	07/08/21 08:50	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW093N

Lab Sample ID: 500-201900-34

Date Collected: 07/03/21 13:30

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 77.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 13:28	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 13:28	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 13:28	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 13:28	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 13:28	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 13:28	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/07/21 16:39	07/08/21 13:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	07/07/21 16:39	07/08/21 13:28	20
DCB Decachlorobiphenyl	74		37 - 121	07/07/21 16:39	07/08/21 13:28	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SWDUP6

Lab Sample ID: 500-201900-35

Date Collected: 07/03/21 11:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 76.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 09:21	20
PCB-1221	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 09:21	20
PCB-1232	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 09:21	20
PCB-1242	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 09:21	20
PCB-1248	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 09:21	20
PCB-1254	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 09:21	20
PCB-1260	<0.43		0.43		mg/Kg	☼	07/07/21 16:39	07/08/21 09:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/07/21 16:39	07/08/21 09:21	20
DCB Decachlorobiphenyl	72		37 - 121	07/07/21 16:39	07/08/21 09:21	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

GC Semi VOA

Prep Batch: 608213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-21	ED-R1SD-098	Total/NA	Solid	3541	
500-201900-22	ED-R1SD-099	Total/NA	Solid	3541	
500-201900-23	ED-R1SD-SW082S	Total/NA	Solid	3541	
500-201900-24	ED-R1SD-SW083N	Total/NA	Solid	3541	
500-201900-25	ED-R1SD-SW084S	Total/NA	Solid	3541	
500-201900-26	ED-R1SD-SW085N	Total/NA	Solid	3541	
500-201900-27	ED-R1SD-SW086S	Total/NA	Solid	3541	
500-201900-28	ED-R1SD-SW087N	Total/NA	Solid	3541	
500-201900-29	ED-R1SD-SW088S	Total/NA	Solid	3541	
500-201900-30	ED-R1SD-SW089N	Total/NA	Solid	3541	
500-201900-31	ED-R1SD-SW090S	Total/NA	Solid	3541	
500-201900-32	ED-R1SD-SW091N	Total/NA	Solid	3541	
500-201900-33	ED-R1SD-SW092S	Total/NA	Solid	3541	
500-201900-34	ED-R1SD-SW093N	Total/NA	Solid	3541	
500-201900-35	ED-R1SD-SWDUP6	Total/NA	Solid	3541	
MB 500-608213/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-608213/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201900-24 MS	ED-R1SD-SW083N	Total/NA	Solid	3541	
500-201900-24 MSD	ED-R1SD-SW083N	Total/NA	Solid	3541	

Analysis Batch: 608250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-21	ED-R1SD-098	Total/NA	Solid	8082A	608213
500-201900-22	ED-R1SD-099	Total/NA	Solid	8082A	608213
500-201900-23	ED-R1SD-SW082S	Total/NA	Solid	8082A	608213
500-201900-24	ED-R1SD-SW083N	Total/NA	Solid	8082A	608213
500-201900-25	ED-R1SD-SW084S	Total/NA	Solid	8082A	608213
500-201900-26	ED-R1SD-SW085N	Total/NA	Solid	8082A	608213
500-201900-27	ED-R1SD-SW086S	Total/NA	Solid	8082A	608213
500-201900-28	ED-R1SD-SW087N	Total/NA	Solid	8082A	608213
500-201900-29	ED-R1SD-SW088S	Total/NA	Solid	8082A	608213
500-201900-30	ED-R1SD-SW089N	Total/NA	Solid	8082A	608213
500-201900-31	ED-R1SD-SW090S	Total/NA	Solid	8082A	608213
500-201900-32	ED-R1SD-SW091N	Total/NA	Solid	8082A	608213
500-201900-33	ED-R1SD-SW092S	Total/NA	Solid	8082A	608213
500-201900-34	ED-R1SD-SW093N	Total/NA	Solid	8082A	608213
500-201900-35	ED-R1SD-SWDUP6	Total/NA	Solid	8082A	608213
MB 500-608213/1-A	Method Blank	Total/NA	Solid	8082A	608213
LCS 500-608213/2-A	Lab Control Sample	Total/NA	Solid	8082A	608213
500-201900-24 MS	ED-R1SD-SW083N	Total/NA	Solid	8082A	608213
500-201900-24 MSD	ED-R1SD-SW083N	Total/NA	Solid	8082A	608213

General Chemistry

Analysis Batch: 607964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-21	ED-R1SD-098	Total/NA	Solid	Moisture	
500-201900-22	ED-R1SD-099	Total/NA	Solid	Moisture	
500-201900-23	ED-R1SD-SW082S	Total/NA	Solid	Moisture	
500-201900-24	ED-R1SD-SW083N	Total/NA	Solid	Moisture	
500-201900-25	ED-R1SD-SW084S	Total/NA	Solid	Moisture	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

General Chemistry (Continued)

Analysis Batch: 607964 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-26	ED-R1SD-SW085N	Total/NA	Solid	Moisture	
500-201900-27	ED-R1SD-SW086S	Total/NA	Solid	Moisture	
500-201900-28	ED-R1SD-SW087N	Total/NA	Solid	Moisture	
500-201900-29	ED-R1SD-SW088S	Total/NA	Solid	Moisture	
500-201900-30	ED-R1SD-SW089N	Total/NA	Solid	Moisture	
500-201900-31	ED-R1SD-SW090S	Total/NA	Solid	Moisture	
500-201900-32	ED-R1SD-SW091N	Total/NA	Solid	Moisture	
500-201900-33	ED-R1SD-SW092S	Total/NA	Solid	Moisture	
500-201900-34	ED-R1SD-SW093N	Total/NA	Solid	Moisture	
500-201900-35	ED-R1SD-SWDUP6	Total/NA	Solid	Moisture	
500-201900-21 DU	ED-R1SD-098	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201900-21	ED-R1SD-098	85	86
500-201900-22	ED-R1SD-099	73	70
500-201900-23	ED-R1SD-SW082S	65	64
500-201900-24	ED-R1SD-SW083N	69	73
500-201900-24 MS	ED-R1SD-SW083N	70	76
500-201900-24 MSD	ED-R1SD-SW083N	73	85
500-201900-25	ED-R1SD-SW084S	60	62
500-201900-26	ED-R1SD-SW085N	57	48
500-201900-27	ED-R1SD-SW086S	51	63
500-201900-28	ED-R1SD-SW087N	69	82
500-201900-29	ED-R1SD-SW088S	65	77
500-201900-30	ED-R1SD-SW089N	63	73
500-201900-31	ED-R1SD-SW090S	55	58
500-201900-32	ED-R1SD-SW091N	0 D	0 D
500-201900-33	ED-R1SD-SW092S	28 S1-	38
500-201900-34	ED-R1SD-SW093N	61	74
500-201900-35	ED-R1SD-SWDUP6	66	72
LCS 500-608213/2-A	Lab Control Sample	67	70
MB 500-608213/1-A	Method Blank	81	76

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-608213/1-A
Matrix: Solid
Analysis Batch: 608250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608213

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1221	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1232	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1242	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1248	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1254	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1260	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	81		49 - 129	07/07/21 16:39		07/08/21 04:43		20
DCB Decachlorobiphenyl	76		37 - 121	07/07/21 16:39		07/08/21 04:43		20

Lab Sample ID: LCS 500-608213/2-A
Matrix: Solid
Analysis Batch: 608250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608213

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.31		mg/Kg		79	57 - 120	
PCB-1260	1.67	1.35		mg/Kg		81	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	67		49 - 129
DCB Decachlorobiphenyl	70		37 - 121

Lab Sample ID: 500-201900-24 MS
Matrix: Solid
Analysis Batch: 608250

Client Sample ID: ED-R1SD-SW083N
Prep Type: Total/NA
Prep Batch: 608213

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.40		1.97	2.12		mg/Kg	☼	108	57 - 120	
PCB-1260	<0.40		1.97	1.69		mg/Kg	☼	86	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	70		49 - 129
DCB Decachlorobiphenyl	76		37 - 121

Lab Sample ID: 500-201900-24 MSD
Matrix: Solid
Analysis Batch: 608250

Client Sample ID: ED-R1SD-SW083N
Prep Type: Total/NA
Prep Batch: 608213

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.40		1.97	1.89		mg/Kg	☼	96	57 - 120	12	30	
PCB-1260	<0.40		1.97	1.63		mg/Kg	☼	83	61 - 125	4	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	73		49 - 129
DCB Decachlorobiphenyl	85		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-098

Lab Sample ID: 500-201900-21

Date Collected: 07/03/21 10:20

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-098

Lab Sample ID: 500-201900-21

Date Collected: 07/03/21 10:20

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 10:53	SS	TAL CHI

Client Sample ID: ED-R1SD-099

Lab Sample ID: 500-201900-22

Date Collected: 07/03/21 10:45

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-099

Lab Sample ID: 500-201900-22

Date Collected: 07/03/21 10:45

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 75.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 11:09	SS	TAL CHI

Client Sample ID: ED-R1SD-SW082S

Lab Sample ID: 500-201900-23

Date Collected: 07/03/21 11:10

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW082S

Lab Sample ID: 500-201900-23

Date Collected: 07/03/21 11:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 81.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 05:45	SS	TAL CHI

Client Sample ID: ED-R1SD-SW083N

Lab Sample ID: 500-201900-24

Date Collected: 07/03/21 11:15

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW083N

Lab Sample ID: 500-201900-24

Date Collected: 07/03/21 11:15

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 11:24	SS	TAL CHI

Client Sample ID: ED-R1SD-SW084S

Lab Sample ID: 500-201900-25

Date Collected: 07/03/21 11:20

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW084S

Lab Sample ID: 500-201900-25

Date Collected: 07/03/21 11:20

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 06:47	SS	TAL CHI

Client Sample ID: ED-R1SD-SW085N

Lab Sample ID: 500-201900-26

Date Collected: 07/03/21 11:25

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW085N

Lab Sample ID: 500-201900-26

Date Collected: 07/03/21 11:25

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 79.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 07:02	SS	TAL CHI

Client Sample ID: ED-R1SD-SW086S

Lab Sample ID: 500-201900-27

Date Collected: 07/03/21 11:50

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW086S

Lab Sample ID: 500-201900-27

Date Collected: 07/03/21 11:50

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 74.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 07:18	SS	TAL CHI

Client Sample ID: ED-R1SD-SW087N

Lab Sample ID: 500-201900-28

Date Collected: 07/03/21 11:55

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW087N

Lab Sample ID: 500-201900-28

Date Collected: 07/03/21 11:55

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 12:11	SS	TAL CHI

Client Sample ID: ED-R1SD-SW088S

Lab Sample ID: 500-201900-29

Date Collected: 07/03/21 12:05

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW088S

Lab Sample ID: 500-201900-29

Date Collected: 07/03/21 12:05

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 07:48	SS	TAL CHI

Client Sample ID: ED-R1SD-SW089N

Lab Sample ID: 500-201900-30

Date Collected: 07/03/21 12:15

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW089N

Lab Sample ID: 500-201900-30

Date Collected: 07/03/21 12:15

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 12:26	SS	TAL CHI

Client Sample ID: ED-R1SD-SW090S

Lab Sample ID: 500-201900-31

Date Collected: 07/03/21 12:40

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW090S

Lab Sample ID: 500-201900-31

Date Collected: 07/03/21 12:40

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 08:19	SS	TAL CHI

Client Sample ID: ED-R1SD-SW091N

Lab Sample ID: 500-201900-32

Date Collected: 07/03/21 12:55

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW091N

Lab Sample ID: 500-201900-32

Date Collected: 07/03/21 12:55

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 74.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		100	608250	07/08/21 13:43	SS	TAL CHI

Client Sample ID: ED-R1SD-SW092S

Lab Sample ID: 500-201900-33

Date Collected: 07/03/21 13:05

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Client Sample ID: ED-R1SD-SW092S

Lab Sample ID: 500-201900-33

Date Collected: 07/03/21 13:05

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 08:50	SS	TAL CHI

Client Sample ID: ED-R1SD-SW093N

Lab Sample ID: 500-201900-34

Date Collected: 07/03/21 13:30

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW093N

Lab Sample ID: 500-201900-34

Date Collected: 07/03/21 13:30

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 77.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 13:28	SS	TAL CHI

Client Sample ID: ED-R1SD-SWDUP6

Lab Sample ID: 500-201900-35

Date Collected: 07/03/21 11:10

Matrix: Solid

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	607964	07/06/21 17:10	LWN	TAL CHI

Client Sample ID: ED-R1SD-SWDUP6

Lab Sample ID: 500-201900-35

Date Collected: 07/03/21 11:10

Matrix: Solid

Date Received: 07/06/21 15:00

Percent Solids: 76.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 09:21	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record

eurofins
 Environment Testing
 America

Client Information		Sampler: F. SORGENSEN	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4						
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page 4 2 of 4						
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested								
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:	Job #: 500-201900								
City: Knoxville		TAT Requested (days): RUSH 24HR	Preservation Codes								
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	A - HCL M - Hexane								
Phone: 865-340-4914(Tel)		PO #:	B - NaOH N - None								
Email: jrnickfordobrien@cecinc.com		Purchase Order not required	C - Zn Acetate O - AsNaO2								
Project Name: Arconic PCB Rush Project - Lafayette, IN		WO #:	D - Nitric Acid P - Na2O4S								
Site:		Project #: 50019033	E - NaHSO4 Q - Na2SO3								
		SSOW#:	F - MeOH R - Na2S2O3								
			G - Amchlor S - H2SO4								
			H - Ascorbic Acid T - TSP Dodecahydrate								
			I - Ice U - Acetone								
			J - DI Water V - MCAA								
			K - EDTA W - pH 4-5								
			L - EDA Z - other (specify)								
			Other:								
			Total Number of containers								
			Special Instructions/Note:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Preservation Code:	Total Number of containers	Special Instructions/Note:
12	ED-RISD-079-1	7/3/21	0650	C	S	X	X	N	X	1	Priority
13	ED-RISD-090	7/3/21	0845	C	S	X	X		X	1	
14	EP-RISD-091	7/3/21	0850	C	S	X	X		X	1	
15	ED-RISD-092	7/3/21	0855	C	S	X	X		X	1	
16	ED-RISD-093	7/3/21	0910	C	S	X	X		X	1	
17	ED-RISD-094	7/3/21	0915	C	S	X	X		X	1	
18	ED-RISD-095	7/3/21	0945	C	S	X	X		X	1	
19	ED-RISD-096	7/3/21	0950	C	S	X	X		X	1	
20	ED-RISD-097	7/3/21	1005	C	S	X	X		X	1	
21	ED-RISD-098	7/3/21	1020	C	S	X	X		X	1	
22	ED-RISD-099	7/3/21	1045	C	S	X	X		X	1	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date			Time			Method of Shipment:		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/3/21			Company: CEC			Received by: _____		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/6/21			Company: CEC			Received by: <i>[Signature]</i> 1385		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/6/21 1500			Company: ECT			Received by: <i>[Signature]</i> 1500		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 35 of 38				Cooler Temperature(s) °C and Other Remarks.			

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: BOURGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92691-41294 4	
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 1 of 4 3 of 4	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested:		Job # 500-201900 Preservation Codes: A HCL M - Hexane B NaOH N None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:			
City: Knoxville		TAT Requested (days): RUSH 24HR		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
State, Zip: TN, 37920		PO #:		Purchase Order not required					
Phone: 865-340-4914(Tel)		WO #:							
Email: jrnickfordobrien@cecinc.com		Project #:		50019033					
Project Name: Arconic PCB Rush Project - Lafayette, IN		SSOW#:							
Site:									
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Field Filtered Sample (Yes or No)	
								Perform MS/MSD (Yes or No)	
								8082A - PCBs	
								Total Number of containers	
								Special Instructions/Note	
ED-RISD-SW082S		7/3/21		1110		C		S	
ED-RISD-SW083N (MS/MSD)		7/3/21		1115		C		S	
ED-RISD-SW084S		7/3/21		1120		C		S	
ED-RISD-SW085W		7/3/21		1125		C		S	
ED-RISD-SW086S		7/3/21		1150		C		S	
ED-RISD-SW087N		7/3/21		1155		C		S	
ED-RISD-SW088S		7/3/21		1205		C		S	
ED-RISD-SW089N		7/3/21		1215		C		S	
ED-RISD-SW090S		7/3/21		1240		C		S	
ED-RISD-SW091N		7/3/21		1255		C		S	
ED-RISD-SW092S		7/3/21		1305		C		S	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I, II, III, IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by			Date		Time		Method of Shipment:		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/3/21		Company: CEL		Received by: <i>[Signature]</i>		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/6/21		Company: CEC		Received by: <i>[Signature]</i> 7/6/21 1345		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/6/21 1500		Company: EIA		Received by: <i>[Signature]</i> 7/6/21 1500		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks.		7/8/2021			

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information: Jenny Rickford O'Brien, Civil & Environmental Consultants Inc. Analysis Requested: Table with columns for Sample Date, Sample Time, Sample Type, Matrix, Field Filtered Sample, etc. Includes preservation codes and disposal instructions.

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201900-2

Login Number: 201900

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201900-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 1

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/12/2021 6:09:08 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Job ID: 500-201900-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201900-3

Comments

No additional comments.

Receipt

The samples were received on 7/6/2021 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Revised Report

The report was revised because the equipment blank ID should be ED-R1SD-EB13

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Client Sample ID: ED-R1SD-EB13

Lab Sample ID: 500-201900-36

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201900-36	ED-R1SD-EB13	Water	07/03/21 15:00	07/06/21 15:00	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Client Sample ID: ED-R1SD-EB13

Lab Sample ID: 500-201900-36

Date Collected: 07/03/21 15:00

Matrix: Water

Date Received: 07/06/21 15:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00038		0.00038		mg/L		07/08/21 13:57	07/09/21 00:23	1
PCB-1221	<0.00038		0.00038		mg/L		07/08/21 13:57	07/09/21 00:23	1
PCB-1232	<0.00038		0.00038		mg/L		07/08/21 13:57	07/09/21 00:23	1
PCB-1242	<0.00038		0.00038		mg/L		07/08/21 13:57	07/09/21 00:23	1
PCB-1248	<0.00038		0.00038		mg/L		07/08/21 13:57	07/09/21 00:23	1
PCB-1254	<0.00038		0.00038		mg/L		07/08/21 13:57	07/09/21 00:23	1
PCB-1260	<0.00038		0.00038		mg/L		07/08/21 13:57	07/09/21 00:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	53		30 - 120	07/08/21 13:57	07/09/21 00:23	1
DCB Decachlorobiphenyl	80		30 - 140	07/08/21 13:57	07/09/21 00:23	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

GC Semi VOA

Prep Batch: 608418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-36	ED-R1SD-EB13	Total/NA	Water	3510C	
MB 500-608418/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-608418/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-608418/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 608474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201900-36	ED-R1SD-EB13	Total/NA	Water	8082A	608418
MB 500-608418/1-A	Method Blank	Total/NA	Water	8082A	608418
LCS 500-608418/4-A	Lab Control Sample	Total/NA	Water	8082A	608418
LCSD 500-608418/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	608418

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201900-36	ED-R1SD-EB13	53	80
LCS 500-608418/4-A	Lab Control Sample	60	83
LCSD 500-608418/5-A	Lab Control Sample Dup	77	94
MB 500-608418/1-A	Method Blank	57	68

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-608418/1-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1221	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1232	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1242	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1248	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1254	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1260	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		30 - 120	07/08/21 13:57	07/08/21 22:14	1
DCB Decachlorobiphenyl	68		30 - 140	07/08/21 13:57	07/08/21 22:14	1

Lab Sample ID: LCS 500-608418/4-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00294		mg/L		73	56 - 120
PCB-1260	0.00400	0.00341		mg/L		85	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	60		30 - 120
DCB Decachlorobiphenyl	83		30 - 140

Lab Sample ID: LCSD 500-608418/5-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 608418

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00356		mg/L		89	56 - 120	19	20
PCB-1260	0.00400	0.00415		mg/L		104	53 - 137	20	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	77		30 - 120
DCB Decachlorobiphenyl	94		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Client Sample ID: ED-R1SD-EB13

Lab Sample ID: 500-201900-36

Date Collected: 07/03/21 15:00

Matrix: Water

Date Received: 07/06/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			608418	07/08/21 13:57	DAK	TAL CHI
Total/NA	Analysis	8082A		1	608474	07/09/21 00:23	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201900-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record

eurofins Environment Testing America

Client Information		Sampler: I JORGENSEN	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4		
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page 1084 1084		
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested				
Address: 2704 Cherokee Farm Way Suite 101 City: Knoxville State, Zip: TN, 37920 Phone: 865-340-4914(Tel) 500-201900 COC Email: jrnickfordobrien@cecinc.com		Due Date Requested: RUSH 24HR	Job #: 500-201900				
Project Name: Arconic PCB Rush Project - Lafayette, IN		TAT Requested (days): RUSH 24HR	Preservation Codes: A HCL M - Hexane B NaOH N None C - Zn Acetate O - AsNaO2 D - Nitric Acid P Na2O4S E NaHSO4 Q - Na2SO3 F MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T TSP Dodecahydrate I - Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)				
Site:		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	Other:				
Sample Identification		PO #: Purchase Order not required	Total Number of containers				
Sample Date		WO #:	Special Instructions/Note				
Sample Time		Project #: 50019033	Field Filtered Sample (Yes or No)				
Sample Type (C=Comp, G=grab)		SSOW#:	Perform MS/MSD (Yes or No)				
Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)			8082A - PCBs				
Preservation Code:			N				
ED-RISD-021-3		7/3/21 1400	C	S	X	1	Priority
ED-RISD-SW013N-2		7/3/21 1410	C	S	X	1	Priority
ED-RISD-SW056S-1		7/2/21 1530	C	S	X	1	
ED-RISD-SW051N-1		7/2/21 1532	C	S	X	1	
ED-RISD-SW053N-1		7/2/21 1540	C	S	X	1	
ED-RISD-SW055N-1		7/2/21 1545	C	S	X	1	
ED-RISD-SW057N-1		7/2/21 1550	C	S	X	1	
ED-RISD-SW062S-1		7/2/21 1610	C	S	X	1	
ED-RISD-SW064S-1		7/2/21 1615	C	S	X	1	
ED-RISD-SW066S-1		7/3/21 0630	C	S	X	1	
ED-RISD-SW067N-1		7/3/21 0635	C	S	X	1	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I, II, III, IV, Other (specify)			Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: 7/3/21	Company: CEC	Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1345	Company: EA
Relinquished by: <i>[Signature]</i>		Date/Time: 7/6/21	Company: CEC	Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1345	Company: EA
Relinquished by: <i>[Signature]</i>		Date/Time: 7/6/21 1500	Company: ECT	Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1500	Company: EA-ECT
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 5.7-5.3		7/12/2021 (Rev. 1)	

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler: F. SORENGSEN	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4						
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page 4 2 of 4						
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested								
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:	Job #: 500-201900								
City: Knoxville		TAT Requested (days): RUSH 24HR	Preservation Codes								
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	A - HCL M - Hexane								
Phone: 865-340-4914(Tel)		PO #:	B - NaOH N - None								
Email: jrickfordobrien@cecinc.com		Purchase Order not required	C - Zn Acetate O - AsNaO2								
Project Name: Arconic PCB Rush Project - Lafayette, IN		WO #:	D - Nitric Acid P - Na2O4S								
Site:		Project #: 50019033	E - NaHSO4 Q - Na2SO3								
		SSOW#:	F - MeOH R - Na2S2O3								
			G - Amchlor S - H2SO4								
			H - Ascorbic Acid T - TSP Dodecahydrate								
			I - Ice U - Acetone								
			J - DI Water V - MCAA								
			K - EDTA W - pH 4-5								
			L - EDA Z - other (specify)								
			Other:								
			Total Number of containers								
			Special Instructions/Note:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Preservation Code:	Total Number of containers	Special Instructions/Note:
12	ED-RISD-079-1	7/3/21	0650	C	S	X	X	N	X	1	Priority
13	ED-RISD-090	7/3/21	0845	C	S	X	X		X	1	
14	EP-RISD-091	7/3/21	0850	C	S	X	X		X	1	
15	ED-RISD-092	7/3/21	0855	C	S	X	X		X	1	
16	ED-RISD-093	7/3/21	0910	C	S	X	X		X	1	
17	ED-RISD-094	7/3/21	0915	C	S	X	X		X	1	
18	ED-RISD-095	7/3/21	0945	C	S	X	X		X	1	
19	ED-RISD-096	7/3/21	0950	C	S	X	X		X	1	
20	ED-RISD-097	7/3/21	1005	C	S	X	X		X	1	
21	ED-RISD-098	7/3/21	1020	C	S	X	X		X	1	
22	ED-RISD-099	7/3/21	1045	C	S	X	X		X	1	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I, <input checked="" type="checkbox"/> II, <input type="checkbox"/> III, <input type="checkbox"/> IV, Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date			Time			Method of Shipment:		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/3/21			Company: CEC			Received by: _____		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/6/21			Company: CEC			Received by: <i>[Signature]</i> 1385		
Relinquished by: <i>[Signature]</i>			Date/Time: 7/6/21			Company: ERT			Received by: <i>[Signature]</i> 1500		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks.				7/12/2021 (Rev. 1)			

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record

eurofins Environment Testing
 America

Client Information		Sampler: BOURGENSEN	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92691-41294 4						
Client Contact: Jenny Rickford O'Brien		Phone: 224-250-5434	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin:	Page 1 of 4 3 of 4						
Company: Civil & Environmental Consultants Inc		PWSID:	Analysis Requested		Job #: 500-201900						
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:	<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> </table>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Preservation Codes A HCL M - Hexane B NaOH N None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify)
Field Filtered Sample (Yes or No)											
Perform MS/MSD (Yes or No)											
8082A - PCBs											
City: Knoxville		TAT Requested (days): RUSH 24HR									
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 865-340-4914(Tel)		PO #:									
Email: jrnickfordobrien@cecinc.com		Purchase Order not required									
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033			Total Number of containers						
Site:		SSOW#:									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Special Instructions/Note		
				Preservation Code:		X	X	N			
23	ED-RISD-SW082 ED-RISD-SW082S	7/3/21	1110	C	S				1		
24	ED-RISD-SW083N (MS/MSD)	7/3/21	1115	C	S	X	X		3		
25	ED-RISD-SW084S	7/3/21	1120	C	S	X			1		
26	ED-RISD-SW085W	7/3/21	1125	C	S	X			1		
27	ED-RISD-SW086S	7/3/21	1150	C	S	X			1		
28	ED-RISD-SW087N	7/3/21	1155	C	S	X			1		
29	ED-RISD-SW088S	7/3/21	1205	C	S	X			1		
30	ED-RISD-SW089N	7/3/21	1215	C	S	X			1		
31	ED-RISD-SW090S	7/3/21	1240	C	S	X			1		
32	ED-RISD-SW091N	7/3/21	1255	C	S	X			1		
33	ED-RISD-SW092S	7/3/21	1305	C	S	X			1		
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested I, II, III, IV, Other (specify)				Special Instructions/QC Requirements							
Empty Kit Relinquished by		Date		Time		Method of Shipment:					
Relinquished by: <i>[Signature]</i>		Date/Time: 7/3/21		Company: CEL		Received by:		Date/Time:		Company:	
Relinquished by: <i>[Signature]</i>		Date/Time: 7/6/21		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1345		Company: <i>[Signature]</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: 7/6/21 1500		Company: EIA		Received by: <i>[Signature]</i>		Date/Time: 7/6/21 1500		Company: <i>[Signature]</i>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks:		7/12/2021 (Rev. 1)					

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201900-3

Login Number: 201900

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-201963-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/9/2021 12:33:00 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Job ID: 500-201963-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-201963-1

Comments

No additional comments.

Receipt

The samples were received on 7/7/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2° C.

GC Semi VOA

Method 8082A: Surrogate Tetrachloro-m-xylene (TMX) recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-608250/3). The other surrogate was within limits and both of the surrogates were within limits on the primary column which shows the extraction process was done correctly ; therefore, re-analysis was not performed.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW096S (500-201963-3).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-SW095N (500-201963-2).

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1016: ED-R1SD-SW094S (500-201963-1).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW094S (500-201963-1), ED-R1SD-SW095N (500-201963-2), ED-R1SD-SW095N (500-201963-2[MS]), ED-R1SD-SW095N (500-201963-2[MSD]) and ED-R1SD-SW096S (500-201963-3). The reagent lot number used was: SLCG3578.

Method 8082A: The following samples were reported from the primary column due to Tetrachloro-m-xylene, DCB Decachlorobiphenyl, PCB-1016 and PCB-1260 recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW015N-2 (500-201963-8), ED-R1SD-SW098S (500-201963-9), ED-R1SD-SW100S (500-201963-11), ED-R1SD-SW103N (500-201963-14) and ED-R1SD-SWDUP-7 (500-201963-15).

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1232: ED-R1SD-SW100S (500-201963-11), ED-R1SD-SW101N (500-201963-12), ED-R1SD-SW103N (500-201963-14) and ED-R1SD-SWDUP-7 (500-201963-15).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW100S (500-201963-11), ED-R1SD-SW101N (500-201963-12), ED-R1SD-SW102S (500-201963-13), ED-R1SD-SW103N (500-201963-14), ED-R1SD-SWDUP-7 (500-201963-15) and ED-R1SD-SWDUP8 (500-201963-16). The reagent lot number used was: Z07G073.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R1SD-057-2 (500-201963-7).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW094S

Lab Sample ID: 500-201963-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	0.61		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW095N

Lab Sample ID: 500-201963-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.53		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW096S

Lab Sample ID: 500-201963-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.74		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW097N

Lab Sample ID: 500-201963-4

No Detections.

Client Sample ID: ED-R1SD-SW073N-1

Lab Sample ID: 500-201963-5

No Detections.

Client Sample ID: ED-R1SD-SW074S-1

Lab Sample ID: 500-201963-6

No Detections.

Client Sample ID: ED-R1SD-057-2

Lab Sample ID: 500-201963-7

No Detections.

Client Sample ID: ED-R1SD-SW015N-2

Lab Sample ID: 500-201963-8

No Detections.

Client Sample ID: ED-R1SD-SW098S

Lab Sample ID: 500-201963-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.42		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW099N

Lab Sample ID: 500-201963-10

No Detections.

Client Sample ID: ED-R1SD-SW100S

Lab Sample ID: 500-201963-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.2		0.42		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	2.0		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW101N

Lab Sample ID: 500-201963-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	1.1		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW102S

Lab Sample ID: 500-201963-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW103N

Lab Sample ID: 500-201963-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	0.80		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SWDUP-7

Lab Sample ID: 500-201963-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	0.73		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SWDUP8

Lab Sample ID: 500-201963-16

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201963-1	ED-R1SD-SW094S	Solid	07/07/21 09:30	07/07/21 16:00	
500-201963-2	ED-R1SD-SW095N	Solid	07/07/21 09:35	07/07/21 16:00	
500-201963-3	ED-R1SD-SW096S	Solid	07/07/21 09:40	07/07/21 16:00	
500-201963-4	ED-R1SD-SW097N	Solid	07/07/21 09:47	07/07/21 16:00	
500-201963-5	ED-R1SD-SW073N-1	Solid	07/07/21 10:00	07/07/21 16:00	
500-201963-6	ED-R1SD-SW074S-1	Solid	07/07/21 10:05	07/07/21 16:00	
500-201963-7	ED-R1SD-057-2	Solid	07/07/21 12:50	07/07/21 16:00	
500-201963-8	ED-R1SD-SW015N-2	Solid	07/07/21 13:50	07/07/21 16:00	
500-201963-9	ED-R1SD-SW098S	Solid	07/07/21 13:04	07/07/21 16:00	
500-201963-10	ED-R1SD-SW099N	Solid	07/07/21 13:03	07/07/21 16:00	
500-201963-11	ED-R1SD-SW100S	Solid	07/07/21 13:11	07/07/21 16:00	
500-201963-12	ED-R1SD-SW101N	Solid	07/07/21 13:07	07/07/21 16:00	
500-201963-13	ED-R1SD-SW102S	Solid	07/07/21 13:16	07/07/21 16:00	
500-201963-14	ED-R1SD-SW103N	Solid	07/07/21 13:13	07/07/21 16:00	
500-201963-15	ED-R1SD-SWDUP-7	Solid	07/07/21 00:00	07/07/21 16:00	
500-201963-16	ED-R1SD-SWDUP8	Solid	07/07/21 00:00	07/07/21 16:00	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW094S

Lab Sample ID: 500-201963-1

Date Collected: 07/07/21 09:30

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 83.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	0.61		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 13:59	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 13:59	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 13:59	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 13:59	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 13:59	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 13:59	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 13:59	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/07/21 16:39	07/08/21 13:59	20
DCB Decachlorobiphenyl	74		37 - 121	07/07/21 16:39	07/08/21 13:59	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW095N

Lab Sample ID: 500-201963-2

Date Collected: 07/07/21 09:35

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 87.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38	F1 F2	0.38		mg/Kg	☼	07/07/21 16:39	07/08/21 14:53	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/07/21 16:39	07/08/21 14:53	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/07/21 16:39	07/08/21 14:53	20
PCB-1242	0.53		0.38		mg/Kg	☼	07/07/21 16:39	07/08/21 14:53	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/07/21 16:39	07/08/21 14:53	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/07/21 16:39	07/08/21 14:53	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/07/21 16:39	07/08/21 14:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	07/07/21 16:39	07/08/21 14:53	20
DCB Decachlorobiphenyl	76		37 - 121	07/07/21 16:39	07/08/21 14:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW096S

Lab Sample ID: 500-201963-3

Date Collected: 07/07/21 09:40

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 83.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 10:38	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 10:38	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 10:38	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 10:38	20
PCB-1248	0.74		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 10:38	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 10:38	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/07/21 16:39	07/08/21 10:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		49 - 129	07/07/21 16:39	07/08/21 10:38	20
DCB Decachlorobiphenyl	68		37 - 121	07/07/21 16:39	07/08/21 10:38	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW097N

Lab Sample ID: 500-201963-4

Date Collected: 07/07/21 09:47

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 88.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:20	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:20	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:20	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:20	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:20	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:20	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		49 - 129	07/08/21 16:30	07/09/21 05:20	20
DCB Decachlorobiphenyl	99		37 - 121	07/08/21 16:30	07/09/21 05:20	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW073N-1

Lab Sample ID: 500-201963-5

Date Collected: 07/07/21 10:00

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:36	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:36	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:36	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:36	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:36	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:36	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 05:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	07/08/21 16:30	07/09/21 05:36	20
DCB Decachlorobiphenyl	81		37 - 121	07/08/21 16:30	07/09/21 05:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW074S-1

Lab Sample ID: 500-201963-6

Date Collected: 07/07/21 10:05

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 85.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 05:51	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 05:51	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 05:51	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 05:51	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 05:51	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 05:51	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 05:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/08/21 16:30	07/09/21 05:51	20
DCB Decachlorobiphenyl	82		37 - 121	07/08/21 16:30	07/09/21 05:51	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-057-2

Lab Sample ID: 500-201963-7

Date Collected: 07/07/21 12:50

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 89.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/08/21 16:30	07/09/21 06:06	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/08/21 16:30	07/09/21 06:06	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/08/21 16:30	07/09/21 06:06	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/08/21 16:30	07/09/21 06:06	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/08/21 16:30	07/09/21 06:06	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/08/21 16:30	07/09/21 06:06	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/08/21 16:30	07/09/21 06:06	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/08/21 16:30	07/09/21 06:06	20
DCB Decachlorobiphenyl	79		37 - 121	07/08/21 16:30	07/09/21 06:06	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW015N-2

Lab Sample ID: 500-201963-8

Date Collected: 07/07/21 13:50

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 87.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:22	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:22	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:22	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:22	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:22	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:22	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	07/08/21 16:30	07/09/21 06:22	20
DCB Decachlorobiphenyl	87		37 - 121	07/08/21 16:30	07/09/21 06:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW098S

Lab Sample ID: 500-201963-9

Date Collected: 07/07/21 13:04

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 86.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:37	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:37	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:37	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:37	20
PCB-1248	0.42		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:37	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:37	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/08/21 16:30	07/09/21 06:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	07/08/21 16:30	07/09/21 06:37	20
DCB Decachlorobiphenyl	90		37 - 121	07/08/21 16:30	07/09/21 06:37	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW099N

Lab Sample ID: 500-201963-10

Date Collected: 07/07/21 13:03

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 85.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 07:23	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 07:23	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 07:23	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 07:23	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 07:23	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 07:23	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 07:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/08/21 16:30	07/09/21 07:23	20
DCB Decachlorobiphenyl	80		37 - 121	07/08/21 16:30	07/09/21 07:23	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW100S

Lab Sample ID: 500-201963-11

Date Collected: 07/07/21 13:11

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 78.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/08/21 16:30	07/09/21 09:11	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/08/21 16:30	07/09/21 09:11	20
PCB-1232	3.2		0.42		mg/Kg	☼	07/08/21 16:30	07/09/21 09:11	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/08/21 16:30	07/09/21 09:11	20
PCB-1248	2.0		0.42		mg/Kg	☼	07/08/21 16:30	07/09/21 09:11	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/08/21 16:30	07/09/21 09:11	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/08/21 16:30	07/09/21 09:11	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/08/21 16:30	07/09/21 09:11	20
DCB Decachlorobiphenyl	77		37 - 121	07/08/21 16:30	07/09/21 09:11	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW101N

Lab Sample ID: 500-201963-12

Date Collected: 07/07/21 13:07

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 09:27	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 09:27	20
PCB-1232	1.1		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 09:27	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 09:27	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 09:27	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 09:27	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 09:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	07/08/21 16:30	07/09/21 09:27	20
DCB Decachlorobiphenyl	75		37 - 121	07/08/21 16:30	07/09/21 09:27	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW102S

Lab Sample ID: 500-201963-13

Date Collected: 07/07/21 13:16

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 83.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/08/21 16:30	07/09/21 09:42	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/08/21 16:30	07/09/21 09:42	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/08/21 16:30	07/09/21 09:42	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/08/21 16:30	07/09/21 09:42	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/08/21 16:30	07/09/21 09:42	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/08/21 16:30	07/09/21 09:42	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/08/21 16:30	07/09/21 09:42	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/08/21 16:30	07/09/21 09:42	20
DCB Decachlorobiphenyl	80		37 - 121	07/08/21 16:30	07/09/21 09:42	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW103N

Lab Sample ID: 500-201963-14

Date Collected: 07/07/21 13:13

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:25	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:25	20
PCB-1232	0.80		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:25	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:25	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:25	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:25	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:25	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		49 - 129	07/08/21 16:30	07/09/21 08:25	20
DCB Decachlorobiphenyl	73		37 - 121	07/08/21 16:30	07/09/21 08:25	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SWDUP-7

Lab Sample ID: 500-201963-15

Date Collected: 07/07/21 00:00

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 84.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:40	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:40	20
PCB-1232	0.73		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:40	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:40	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:40	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:40	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:40	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	07/08/21 16:30	07/09/21 08:40	20
DCB Decachlorobiphenyl	88		37 - 121	07/08/21 16:30	07/09/21 08:40	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SWDUP8

Lab Sample ID: 500-201963-16

Date Collected: 07/07/21 00:00

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:56	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:56	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:56	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:56	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:56	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:56	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/08/21 16:30	07/09/21 08:56	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	07/08/21 16:30	07/09/21 08:56	20
DCB Decachlorobiphenyl	76		37 - 121	07/08/21 16:30	07/09/21 08:56	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

GC Semi VOA

Prep Batch: 608213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201963-1	ED-R1SD-SW094S	Total/NA	Solid	3541	
500-201963-2	ED-R1SD-SW095N	Total/NA	Solid	3541	
500-201963-3	ED-R1SD-SW096S	Total/NA	Solid	3541	
MB 500-608213/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-608213/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201963-2 MS	ED-R1SD-SW095N	Total/NA	Solid	3541	
500-201963-2 MSD	ED-R1SD-SW095N	Total/NA	Solid	3541	

Analysis Batch: 608250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201963-1	ED-R1SD-SW094S	Total/NA	Solid	8082A	608213
500-201963-2	ED-R1SD-SW095N	Total/NA	Solid	8082A	608213
500-201963-3	ED-R1SD-SW096S	Total/NA	Solid	8082A	608213
MB 500-608213/1-A	Method Blank	Total/NA	Solid	8082A	608213
LCS 500-608213/2-A	Lab Control Sample	Total/NA	Solid	8082A	608213
500-201963-2 MS	ED-R1SD-SW095N	Total/NA	Solid	8082A	608213
500-201963-2 MSD	ED-R1SD-SW095N	Total/NA	Solid	8082A	608213

Prep Batch: 608439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201963-4	ED-R1SD-SW097N	Total/NA	Solid	3541	
500-201963-5	ED-R1SD-SW073N-1	Total/NA	Solid	3541	
500-201963-6	ED-R1SD-SW074S-1	Total/NA	Solid	3541	
500-201963-7	ED-R1SD-057-2	Total/NA	Solid	3541	
500-201963-8	ED-R1SD-SW015N-2	Total/NA	Solid	3541	
500-201963-9	ED-R1SD-SW098S	Total/NA	Solid	3541	
500-201963-10	ED-R1SD-SW099N	Total/NA	Solid	3541	
500-201963-11	ED-R1SD-SW100S	Total/NA	Solid	3541	
500-201963-12	ED-R1SD-SW101N	Total/NA	Solid	3541	
500-201963-13	ED-R1SD-SW102S	Total/NA	Solid	3541	
500-201963-14	ED-R1SD-SW103N	Total/NA	Solid	3541	
500-201963-15	ED-R1SD-SWDUP-7	Total/NA	Solid	3541	
500-201963-16	ED-R1SD-SWDUP8	Total/NA	Solid	3541	
MB 500-608439/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-608439/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-201963-9 MS	ED-R1SD-SW098S	Total/NA	Solid	3541	
500-201963-9 MSD	ED-R1SD-SW098S	Total/NA	Solid	3541	

Analysis Batch: 608476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201963-4	ED-R1SD-SW097N	Total/NA	Solid	8082A	608439
500-201963-5	ED-R1SD-SW073N-1	Total/NA	Solid	8082A	608439
500-201963-6	ED-R1SD-SW074S-1	Total/NA	Solid	8082A	608439
500-201963-7	ED-R1SD-057-2	Total/NA	Solid	8082A	608439
500-201963-8	ED-R1SD-SW015N-2	Total/NA	Solid	8082A	608439
500-201963-9	ED-R1SD-SW098S	Total/NA	Solid	8082A	608439
500-201963-10	ED-R1SD-SW099N	Total/NA	Solid	8082A	608439
500-201963-11	ED-R1SD-SW100S	Total/NA	Solid	8082A	608439
500-201963-12	ED-R1SD-SW101N	Total/NA	Solid	8082A	608439
500-201963-13	ED-R1SD-SW102S	Total/NA	Solid	8082A	608439
500-201963-14	ED-R1SD-SW103N	Total/NA	Solid	8082A	608439

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

GC Semi VOA (Continued)

Analysis Batch: 608476 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201963-15	ED-R1SD-SWDUP-7	Total/NA	Solid	8082A	608439
500-201963-16	ED-R1SD-SWDUP8	Total/NA	Solid	8082A	608439
MB 500-608439/1-A	Method Blank	Total/NA	Solid	8082A	608439
LCS 500-608439/2-A	Lab Control Sample	Total/NA	Solid	8082A	608439
500-201963-9 MS	ED-R1SD-SW098S	Total/NA	Solid	8082A	608439
500-201963-9 MSD	ED-R1SD-SW098S	Total/NA	Solid	8082A	608439

General Chemistry

Analysis Batch: 608254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201963-1	ED-R1SD-SW094S	Total/NA	Solid	Moisture	
500-201963-2	ED-R1SD-SW095N	Total/NA	Solid	Moisture	
500-201963-3	ED-R1SD-SW096S	Total/NA	Solid	Moisture	
500-201963-4	ED-R1SD-SW097N	Total/NA	Solid	Moisture	
500-201963-5	ED-R1SD-SW073N-1	Total/NA	Solid	Moisture	
500-201963-6	ED-R1SD-SW074S-1	Total/NA	Solid	Moisture	
500-201963-7	ED-R1SD-057-2	Total/NA	Solid	Moisture	
500-201963-8	ED-R1SD-SW015N-2	Total/NA	Solid	Moisture	
500-201963-9	ED-R1SD-SW098S	Total/NA	Solid	Moisture	
500-201963-10	ED-R1SD-SW099N	Total/NA	Solid	Moisture	
500-201963-11	ED-R1SD-SW100S	Total/NA	Solid	Moisture	
500-201963-12	ED-R1SD-SW101N	Total/NA	Solid	Moisture	
500-201963-13	ED-R1SD-SW102S	Total/NA	Solid	Moisture	
500-201963-14	ED-R1SD-SW103N	Total/NA	Solid	Moisture	
500-201963-15	ED-R1SD-SWDUP-7	Total/NA	Solid	Moisture	
500-201963-16	ED-R1SD-SWDUP8	Total/NA	Solid	Moisture	
500-201963-5 DU	ED-R1SD-SW073N-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-201963-1	ED-R1SD-SW094S	60	74
500-201963-2	ED-R1SD-SW095N	65	76
500-201963-2 MS	ED-R1SD-SW095N	60	70
500-201963-2 MSD	ED-R1SD-SW095N	72	80
500-201963-3	ED-R1SD-SW096S	64	68
500-201963-4	ED-R1SD-SW097N	91	99
500-201963-5	ED-R1SD-SW073N-1	77	81
500-201963-6	ED-R1SD-SW074S-1	74	82
500-201963-7	ED-R1SD-057-2	72	79
500-201963-8	ED-R1SD-SW015N-2	81	87
500-201963-9	ED-R1SD-SW098S	87	90
500-201963-9 MS	ED-R1SD-SW098S	81	95
500-201963-9 MSD	ED-R1SD-SW098S	71	83
500-201963-10	ED-R1SD-SW099N	66	80
500-201963-11	ED-R1SD-SW100S	75	77
500-201963-12	ED-R1SD-SW101N	62	75
500-201963-13	ED-R1SD-SW102S	60	80
500-201963-14	ED-R1SD-SW103N	57	73
500-201963-15	ED-R1SD-SWDUP-7	71	88
500-201963-16	ED-R1SD-SWDUP8	62	76
LCS 500-608213/2-A	Lab Control Sample	67	70
LCS 500-608439/2-A	Lab Control Sample	80	80
MB 500-608213/1-A	Method Blank	81	76
MB 500-608439/1-A	Method Blank	94	96

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-608213/1-A
Matrix: Solid
Analysis Batch: 608250

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608213

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1221	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1232	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1242	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1248	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1254	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	
PCB-1260	<0.33		0.33		mg/Kg		07/07/21 16:39	07/08/21 04:43		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	81		49 - 129	07/07/21 16:39		07/08/21 04:43		20
DCB Decachlorobiphenyl	76		37 - 121	07/07/21 16:39		07/08/21 04:43		20

Lab Sample ID: LCS 500-608213/2-A
Matrix: Solid
Analysis Batch: 608250

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608213

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.31		mg/Kg		79	57 - 120	
PCB-1260	1.67	1.35		mg/Kg		81	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	67		49 - 129
DCB Decachlorobiphenyl	70		37 - 121

Lab Sample ID: 500-201963-2 MS
Matrix: Solid
Analysis Batch: 608250

Client Sample ID: ED-R1SD-SW095N
Prep Type: Total/NA
Prep Batch: 608213

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<0.38	F1 F2	1.89	1.66		mg/Kg	☼	88	57 - 120	
PCB-1260	<0.38		1.89	1.41		mg/Kg	☼	75	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	60		49 - 129
DCB Decachlorobiphenyl	70		37 - 121

Lab Sample ID: 500-201963-2 MSD
Matrix: Solid
Analysis Batch: 608250

Client Sample ID: ED-R1SD-SW095N
Prep Type: Total/NA
Prep Batch: 608213

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<0.38	F1 F2	1.89	2.33	F1 F2	mg/Kg	☼	124	57 - 120	34	30	
PCB-1260	<0.38		1.89	1.58		mg/Kg	☼	84	61 - 125	11	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	72		49 - 129
DCB Decachlorobiphenyl	80		37 - 121

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 500-608439/1-A
Matrix: Solid
Analysis Batch: 608476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608439

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		07/08/21 16:30	07/09/21 04:50	20
PCB-1221	<0.33		0.33		mg/Kg		07/08/21 16:30	07/09/21 04:50	20
PCB-1232	<0.33		0.33		mg/Kg		07/08/21 16:30	07/09/21 04:50	20
PCB-1242	<0.33		0.33		mg/Kg		07/08/21 16:30	07/09/21 04:50	20
PCB-1248	<0.33		0.33		mg/Kg		07/08/21 16:30	07/09/21 04:50	20
PCB-1254	<0.33		0.33		mg/Kg		07/08/21 16:30	07/09/21 04:50	20
PCB-1260	<0.33		0.33		mg/Kg		07/08/21 16:30	07/09/21 04:50	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	94		49 - 129	07/08/21 16:30	07/09/21 04:50	20
DCB Decachlorobiphenyl	96		37 - 121	07/08/21 16:30	07/09/21 04:50	20

Lab Sample ID: LCS 500-608439/2-A
Matrix: Solid
Analysis Batch: 608476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608439

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.42		mg/Kg		85	57 - 120
PCB-1260	1.67	1.50		mg/Kg		90	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	80		49 - 129
DCB Decachlorobiphenyl	80		37 - 121

Lab Sample ID: 500-201963-9 MS
Matrix: Solid
Analysis Batch: 608476

Client Sample ID: ED-R1SD-SW098S
Prep Type: Total/NA
Prep Batch: 608439

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.38		1.91	2.15		mg/Kg	☼	112	57 - 120
PCB-1260	<0.38		1.91	1.93		mg/Kg	☼	101	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	81		49 - 129
DCB Decachlorobiphenyl	95		37 - 121

Lab Sample ID: 500-201963-9 MSD
Matrix: Solid
Analysis Batch: 608476

Client Sample ID: ED-R1SD-SW098S
Prep Type: Total/NA
Prep Batch: 608439

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.38		1.91	1.70		mg/Kg	☼	89	57 - 120	23	30
PCB-1260	<0.38		1.91	1.63		mg/Kg	☼	85	61 - 125	17	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	71		49 - 129
DCB Decachlorobiphenyl	83		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW094S

Date Collected: 07/07/21 09:30

Date Received: 07/07/21 16:00

Lab Sample ID: 500-201963-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW094S

Date Collected: 07/07/21 09:30

Date Received: 07/07/21 16:00

Lab Sample ID: 500-201963-1

Matrix: Solid

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 13:59	SS	TAL CHI

Client Sample ID: ED-R1SD-SW095N

Date Collected: 07/07/21 09:35

Date Received: 07/07/21 16:00

Lab Sample ID: 500-201963-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW095N

Date Collected: 07/07/21 09:35

Date Received: 07/07/21 16:00

Lab Sample ID: 500-201963-2

Matrix: Solid

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 14:53	SS	TAL CHI

Client Sample ID: ED-R1SD-SW096S

Date Collected: 07/07/21 09:40

Date Received: 07/07/21 16:00

Lab Sample ID: 500-201963-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW096S

Date Collected: 07/07/21 09:40

Date Received: 07/07/21 16:00

Lab Sample ID: 500-201963-3

Matrix: Solid

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608213	07/07/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608250	07/08/21 10:38	SS	TAL CHI

Client Sample ID: ED-R1SD-SW097N

Date Collected: 07/07/21 09:47

Date Received: 07/07/21 16:00

Lab Sample ID: 500-201963-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW097N

Lab Sample ID: 500-201963-4

Date Collected: 07/07/21 09:47

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 05:20	SS	TAL CHI

Client Sample ID: ED-R1SD-SW073N-1

Lab Sample ID: 500-201963-5

Date Collected: 07/07/21 10:00

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW073N-1

Lab Sample ID: 500-201963-5

Date Collected: 07/07/21 10:00

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 05:36	SS	TAL CHI

Client Sample ID: ED-R1SD-SW074S-1

Lab Sample ID: 500-201963-6

Date Collected: 07/07/21 10:05

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW074S-1

Lab Sample ID: 500-201963-6

Date Collected: 07/07/21 10:05

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 05:51	SS	TAL CHI

Client Sample ID: ED-R1SD-057-2

Lab Sample ID: 500-201963-7

Date Collected: 07/07/21 12:50

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-057-2

Lab Sample ID: 500-201963-7

Date Collected: 07/07/21 12:50

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 06:06	SS	TAL CHI

Client Sample ID: ED-R1SD-SW015N-2

Lab Sample ID: 500-201963-8

Date Collected: 07/07/21 13:50

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW015N-2

Lab Sample ID: 500-201963-8

Date Collected: 07/07/21 13:50

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 06:22	SS	TAL CHI

Client Sample ID: ED-R1SD-SW098S

Lab Sample ID: 500-201963-9

Date Collected: 07/07/21 13:04

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW098S

Lab Sample ID: 500-201963-9

Date Collected: 07/07/21 13:04

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 06:37	SS	TAL CHI

Client Sample ID: ED-R1SD-SW099N

Lab Sample ID: 500-201963-10

Date Collected: 07/07/21 13:03

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW099N

Lab Sample ID: 500-201963-10

Date Collected: 07/07/21 13:03

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 07:23	SS	TAL CHI

Client Sample ID: ED-R1SD-SW100S

Lab Sample ID: 500-201963-11

Date Collected: 07/07/21 13:11

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW100S

Lab Sample ID: 500-201963-11

Date Collected: 07/07/21 13:11

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 09:11	SS	TAL CHI

Client Sample ID: ED-R1SD-SW101N

Lab Sample ID: 500-201963-12

Date Collected: 07/07/21 13:07

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW101N

Lab Sample ID: 500-201963-12

Date Collected: 07/07/21 13:07

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 09:27	SS	TAL CHI

Client Sample ID: ED-R1SD-SW102S

Lab Sample ID: 500-201963-13

Date Collected: 07/07/21 13:16

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SW102S

Lab Sample ID: 500-201963-13

Date Collected: 07/07/21 13:16

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 83.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 09:42	SS	TAL CHI

Client Sample ID: ED-R1SD-SW103N

Lab Sample ID: 500-201963-14

Date Collected: 07/07/21 13:13

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW103N

Lab Sample ID: 500-201963-14

Date Collected: 07/07/21 13:13

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 08:25	SS	TAL CHI

Client Sample ID: ED-R1SD-SWDUP-7

Lab Sample ID: 500-201963-15

Date Collected: 07/07/21 00:00

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Client Sample ID: ED-R1SD-SWDUP-7

Lab Sample ID: 500-201963-15

Date Collected: 07/07/21 00:00

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 08:40	SS	TAL CHI

Client Sample ID: ED-R1SD-SWDUP8

Lab Sample ID: 500-201963-16

Date Collected: 07/07/21 00:00

Matrix: Solid

Date Received: 07/07/21 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608254	07/08/21 06:30	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Client Sample ID: ED-R1SD-SWDUP8

Lab Sample ID: 500-201963-16

Date Collected: 07/07/21 00:00

Matrix: Solid

Date Received: 07/07/21 16:00

Percent Solids: 86.0

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			608439	07/08/21 16:30	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608476	07/09/21 08:56	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Chain of Custody Record

Client Information		Sampler:	Lab PM	Carrier Tracking No(s)	COC No:						
Client Contact: Jenny Rickford O'Brien		Phone:	Kintz, Robin M	State of Origin	500-92691-41294 2						
Company: Civil & Environmental Consultants Inc		PWSID	E-Mail: Robin Kintz@Eurofinset.com	Page	Page 2 of 12						
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested	Analysis Requested								
City: Knoxville		TAT Requested (days)									
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required									
Email: jrickfordobrien@cecinc.com		WO #	Job # 500-201963								
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033									
Site		SSOW#									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of Containers	Special Instructions/Note	
		Preservation Code: <input checked="" type="checkbox"/> N									
1	ED-RISD-SN094S	7/7/21	9:30	C	S						
2	ED-RISD-SN095N		9:35	C	S	X	X				
3	ED-RISD-SN096S		9:40	C	S		X				
4	ED-RISD-SN097N		9:47	C	S		X				
5	ED-RISD-SN073N-1		10:00	C	S		X				
6	ED-RISD-SN094S-1		10:05	C	S		X				
7	ED-RISD-057-2		12:50	C	S		X				
8	ED-RISD-SN015N-2		1:50	C	S		X				
9	ED-RISD-SN098S		1:04	C	S	X	X				
10	ED-RISD-SN099N		1:03	C	S		X				
11	ED-RISD-SN100S		1:11	C	S		X				
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by:			Date:	Time:	Method of Shipment:						
Relinquished by: <i>Jimmy Owen</i>			Date/Time: 7/7/21 / 2:55	Company:	Received by: <i>[Signature]</i>			Date/Time: 7/7/21 1455	Company: ETA		
Relinquished by: <i>Jin</i>			Date/Time: 7/7/21 1:00	Company: ETA	Received by: <i>[Signature]</i>			Date/Time: 7/7/21 1600	Company: <i>ETA UBT</i>		
Relinquished by:			Date/Time:	Company:	Received by:			Date/Time:	Company:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks: 4.0 → 4.2						

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler:	Lab PM	Carrier Tracking No(s)	COC No:																											
Client Contact: Jenny Rickford O'Brien		Phone	Kintz Robin M		500-92691-41294 1																											
Company: Civil & Environmental Consultants Inc		PWSID	E-Mail Robin Kintz@Eurofinset.com	State of Origin	Page: Page 1 of 12																											
Address: 2704 Cherokee Farm Way Suite 101		Analysis Requested			Job #: 500-201963																											
City: Knoxville					<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;">Preservation Codes</td> </tr> <tr> <td>A HCL</td> <td>M Hexane</td> </tr> <tr> <td>B NaOH</td> <td>N None</td> </tr> <tr> <td>C Zn Acetate</td> <td>O AsNaO2</td> </tr> <tr> <td>D Nitric Acid</td> <td>P Na2O4S</td> </tr> <tr> <td>E NaHSO4</td> <td>Q Na2SO3</td> </tr> <tr> <td>F MeOH</td> <td>R Na2S2O3</td> </tr> <tr> <td>G Amchlor</td> <td>S H2SO4</td> </tr> <tr> <td>H Ascorbic Acid</td> <td>T TSP Dodecahydrate</td> </tr> <tr> <td>I Ice</td> <td>U Acetone</td> </tr> <tr> <td>J DI Water</td> <td>V MCAA</td> </tr> <tr> <td>K EDTA</td> <td>W pH 4-5</td> </tr> <tr> <td>L EDA</td> <td>Z other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>			Preservation Codes		A HCL	M Hexane	B NaOH	N None	C Zn Acetate	O AsNaO2	D Nitric Acid	P Na2O4S	E NaHSO4	Q Na2SO3	F MeOH	R Na2S2O3	G Amchlor	S H2SO4	H Ascorbic Acid	T TSP Dodecahydrate	I Ice	U Acetone	J DI Water	V MCAA	K EDTA	W pH 4-5	L EDA
Preservation Codes																																
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B NaOH	N None																															
C Zn Acetate	O AsNaO2																															
D Nitric Acid	P Na2O4S																															
E NaHSO4	Q Na2SO3																															
F MeOH	R Na2S2O3																															
G Amchlor	S H2SO4																															
H Ascorbic Acid	T TSP Dodecahydrate																															
I Ice	U Acetone																															
J DI Water	V MCAA																															
K EDTA	W pH 4-5																															
L EDA	Z other (specify)																															
Other:																																
Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs			Total Number of containers																											
TAT Requested (days)																																
Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No																																
PO #: Purchase Order not required																																
Phone: 865-340-4914(Tel)		Project #: 50019033			SSOW#:																											
Email: jrickfordobrien@cecinc.com																																
Project Name: Arconic PCB Rush Project - Lafayette IN		Sample Identification			Sample Date			Sample Time			Sample Type (C=comp, G=grab)			Matrix (W=water, S=soltd, O=waste/oil, BT=Tissue, A=Air)			Field Filtered Sample (Yes or No)			Perform MS/MSD (Yes or No)			8082A - PCBs			Total Number of containers			Special Instructions/Note			
Site:																																
Preservation Code:		X			N																											
12 ED-RISD-SN101N		7/7/21			1307			C			S			X																		
13 ED-RISD-SN102S		7/7/21			1316			C			S			X																		
14 ED-RISD-SN103N		7/7/21			1313			C			S			X																		
15 ED-RISD-SN104P ED-RISD-SN104P7		7/7/21			-			C			S			X																		
16 ED-RISD-SN104PB		7/7/21			-			C			S			X																		
17 ED-RISD-EB14		7/7/21			1430			G			W			X																		
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			Deliverable Requested I II III IV Other (specify)			Special Instructions/QC Requirements																		
Empty Kit Relinquished by		Date			Time			Method of Shipment:																								
Relinquished by: <i>[Signature]</i>		Date/Time: 7/7/21 2:55			Company: ETA			Received by: <i>[Signature]</i>			Date/Time: 7-7-21 1455			Company: ETA																		
Relinquished by: <i>[Signature]</i>		Date/Time: 7/7/21 1600			Company: ETA			Received by: <i>[Signature]</i>			Date/Time: 7/7/21 1600			Company: BIA CHE																		
Relinquished by:		Date/Time:			Company:			Received by:			Date/Time:			Company:																		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No			Cooler Temperature(s) °C and Other Remarks																											

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201963-1

Login Number: 201963

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is < 6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

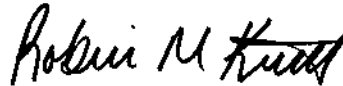
Laboratory Job ID: 500-201963-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/14/2021 12:14:08 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Job ID: 500-201963-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-201963-2**

Comments

No additional comments.

Receipt

The samples were received on 7/7/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Client Sample ID: ED-R1SD-EB14

Lab Sample ID: 500-201963-17

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-201963-17	ED-R1SD-EB14	Water	07/07/21 14:30	07/07/21 16:00	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Client Sample ID: ED-R1SD-EB14

Lab Sample ID: 500-201963-17

Date Collected: 07/07/21 14:30

Matrix: Water

Date Received: 07/07/21 16:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00041		0.00041		mg/L		07/08/21 13:57	07/09/21 00:39	1
PCB-1221	<0.00041		0.00041		mg/L		07/08/21 13:57	07/09/21 00:39	1
PCB-1232	<0.00041		0.00041		mg/L		07/08/21 13:57	07/09/21 00:39	1
PCB-1242	<0.00041		0.00041		mg/L		07/08/21 13:57	07/09/21 00:39	1
PCB-1248	<0.00041		0.00041		mg/L		07/08/21 13:57	07/09/21 00:39	1
PCB-1254	<0.00041		0.00041		mg/L		07/08/21 13:57	07/09/21 00:39	1
PCB-1260	<0.00041		0.00041		mg/L		07/08/21 13:57	07/09/21 00:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	59		30 - 120	07/08/21 13:57	07/09/21 00:39	1
DCB Decachlorobiphenyl	68		30 - 140	07/08/21 13:57	07/09/21 00:39	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

GC Semi VOA

Prep Batch: 608418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201963-17	ED-R1SD-EB14	Total/NA	Water	3510C	
MB 500-608418/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-608418/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-608418/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 608474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-201963-17	ED-R1SD-EB14	Total/NA	Water	8082A	608418
MB 500-608418/1-A	Method Blank	Total/NA	Water	8082A	608418
LCS 500-608418/4-A	Lab Control Sample	Total/NA	Water	8082A	608418
LCSD 500-608418/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	608418



Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-201963-17	ED-R1SD-EB14	59	68
LCS 500-608418/4-A	Lab Control Sample	60	83
LCSD 500-608418/5-A	Lab Control Sample Dup	77	94
MB 500-608418/1-A	Method Blank	57	68

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-608418/1-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1221	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1232	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1242	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1248	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1254	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1
PCB-1260	<0.00040		0.00040		mg/L		07/08/21 13:57	07/08/21 22:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		30 - 120	07/08/21 13:57	07/08/21 22:14	1
DCB Decachlorobiphenyl	68		30 - 140	07/08/21 13:57	07/08/21 22:14	1

Lab Sample ID: LCS 500-608418/4-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00294		mg/L		73	56 - 120
PCB-1260	0.00400	0.00341		mg/L		85	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	60		30 - 120
DCB Decachlorobiphenyl	83		30 - 140

Lab Sample ID: LCSD 500-608418/5-A
Matrix: Water
Analysis Batch: 608474

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 608418

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00356		mg/L		89	56 - 120	19	20
PCB-1260	0.00400	0.00415		mg/L		104	53 - 137	20	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	77		30 - 120
DCB Decachlorobiphenyl	94		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Client Sample ID: ED-R1SD-EB14

Lab Sample ID: 500-201963-17

Date Collected: 07/07/21 14:30

Matrix: Water

Date Received: 07/07/21 16:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			608418	07/08/21 13:57	DAK	TAL CHI
Total/NA	Analysis	8082A		1	608474	07/09/21 00:39	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-201963-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
America

Client Information		Sampler:	Lab PM	Carrier Tracking No(s)	COC No:																																
Client Contact: Jenny Rickford O'Brien		Phone:	Kintz, Robin M	State of Origin	500-92691-41294 2																																
Company: Civil & Environmental Consultants Inc		PWSID	E-Mail: Robin Kintz@Eurofinset.com	Page	Page 2 of 12																																
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested	Analysis Requested																																		
City: Knoxville		TAT Requested (days)	<table border="1"> <tr><td colspan="2">Job #</td></tr> <tr><td colspan="2">500-201963</td></tr> <tr><td colspan="2">Preservation Codes</td></tr> <tr><td>A HCL</td><td>M Hexane</td></tr> <tr><td>B NaOH</td><td>N None</td></tr> <tr><td>C - Zn Acetate</td><td>O AsNaO2</td></tr> <tr><td>D Nitric Acid</td><td>P Na2O4S</td></tr> <tr><td>E NaHSO4</td><td>Q Na2SO3</td></tr> <tr><td>F MeOH</td><td>R Na2S2O3</td></tr> <tr><td>G Amchlor</td><td>S H2SO4</td></tr> <tr><td>H Ascorbic Acid</td><td>T TSP Dodecahydrate</td></tr> <tr><td>I Ice</td><td>U Acetone</td></tr> <tr><td>J DI Water</td><td>V MCAA</td></tr> <tr><td>K EDTA</td><td>W pH 4-5</td></tr> <tr><td>L EDA</td><td>Z other (specify)</td></tr> <tr><td colspan="2">Other:</td></tr> </table>			Job #		500-201963		Preservation Codes		A HCL	M Hexane	B NaOH	N None	C - Zn Acetate	O AsNaO2	D Nitric Acid	P Na2O4S	E NaHSO4	Q Na2SO3	F MeOH	R Na2S2O3	G Amchlor	S H2SO4	H Ascorbic Acid	T TSP Dodecahydrate	I Ice	U Acetone	J DI Water	V MCAA	K EDTA	W pH 4-5	L EDA	Z other (specify)	Other:	
Job #																																					
500-201963																																					
Preservation Codes																																					
A HCL	M Hexane																																				
B NaOH	N None																																				
C - Zn Acetate	O AsNaO2																																				
D Nitric Acid	P Na2O4S																																				
E NaHSO4	Q Na2SO3																																				
F MeOH	R Na2S2O3																																				
G Amchlor	S H2SO4																																				
H Ascorbic Acid	T TSP Dodecahydrate																																				
I Ice	U Acetone																																				
J DI Water	V MCAA																																				
K EDTA	W pH 4-5																																				
L EDA	Z other (specify)																																				
Other:																																					
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																																			
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																																			
Email: jrickfordobrien@cecinc.com		WO #:																																			
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033	<table border="1"> <tr><td colspan="2">Total Number of Containers</td></tr> <tr><td colspan="2"></td></tr> </table>			Total Number of Containers																															
Total Number of Containers																																					
Site:		SSOW#:																																			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Special Instructions/Note																												
									Preservation Code: X X N																												
1	ED-RISD-SN094S	7/7/21	9:30	C	S		X		1																												
2	ED-RISD-SN095N		9:35	C	S		X		3																												
3	ED-RISD-SN096S		9:40	C	S		X		1																												
4	ED-RISD-SN097N		9:47	C	S		X		1																												
5	ED-RISD-SN073N-1		10:00	C	S		X		1																												
6	ED-RISD-SN094S-1		10:05	C	S		X		1																												
7	ED-RISD-057-2		12:50	C	S		X		1																												
8	ED-RISD-SN015N-2		1:50	C	S		X		1																												
9	ED-RISD-SN098S		1:04	C	S		X		3																												
10	ED-RISD-SN099N		1:03	C	S		X		1																												
11	ED-RISD-SN100S		1:11	C	S		X		1																												
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																															
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																															
Deliverable Requested I II III IV Other (specify)						Special Instructions/QC Requirements																															
Empty Kit Relinquished by:			Date:	Time:	Method of Shipment:																																
Relinquished by: <i>Jimmy O'Brien</i>			Date/Time: 7/7/21 / 2:55	Company:	Received by: <i>John</i>			Date/Time: 7/7/21 1455	Company: ETA																												
Relinquished by: <i>Jin</i>			Date/Time: 7/7/21 1:00	Company: ETA	Received by: <i>John</i>			Date/Time: 7/7/21 1600	Company: ETA																												
Relinquished by:			Date/Time:	Company:	Received by:			Date/Time:	Company:																												
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 4.0 → 4.2																																	

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone 708-534-5200 Fax 708-534-5211

Chain of Custody Record



Environment Testing
 America

Client Information		Sampler:	Lab PM	Carrier Tracking No(s)	COC No:	
Client Contact: Jenny Rickford O'Brien		Phone	Kintz Robin M		500-92691-41294 1	
Company: Civil & Environmental Consultants Inc		PWSID	E-Mail Robin Kintz@Eurofinset.com	State of Origin	Page: Page 1 of 12	
Address: 2704 Cherokee Farm Way Suite 101		Analysis Requested			Job #: 500-201963	
City: Knoxville	Due Date Requested	Field Filtered Sample (Yes or No) Perform MSMSB (Yes or No) 8082A - PCBs			Total Number of containers	
State, Zip TN 37920	TAT Requested (days)					
Phone 865-340-4914(Tel)	Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No					
Email jrickfordobrien@cecinc.com	PO #: Purchase Order not required					
Project Name Arconic PCB Rush Project - Lafayette IN	WO #:					
Site:	Project #: 50019033				Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)	
					Other:	
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=soltd, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note	
					Preservation Code:	
12 ED-RISD-SN101N	7/7/21	1307	C	S	X	
13 ED-RISD-SN102S	7/7/21	1316	C	S	X	
14 ED-RISD-SN103N	7/7/21	1313	C	S	X	
15 ED-RISD-SN104P ED-RISD-SN104P7	7/7/21	-	C	S	X	
16 ED-RISD-SN104PB	7/7/21	-	C	S	X	
17 ED-RISD-EB14	7/7/21	1430	G	W	X	Z
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Deliverable Requested I II III IV Other (specify)				Special Instructions/QC Requirements		
Empty Kit Relinquished by		Date	Time	Method of Shipment:		
Relinquished by: <i>[Signature]</i>		Date/Time: 7/7/21 2:55	Company: ETA	Received by: <i>[Signature]</i>		Date/Time: 7/7/21 1455 Company: ETA
Relinquished by: <i>[Signature]</i>		Date/Time: 7/7/21 1600	Company: ETA	Received by: <i>[Signature]</i>		Date/Time: 7/7/21 1600 Company: BTA CFI
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time: Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks				

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-201963-2

Login Number: 201963

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-202095-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/12/2021 3:15:36 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

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QC Sample Results	11
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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Job ID: 500-202095-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-202095-1**

Comments

No additional comments.

Receipt

The sample was received on 7/9/2021 4:30 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.6° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Client Sample ID: ED-R1SD-SW013N-3

Lab Sample ID: 500-202095-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202095-1	ED-R1SD-SW013N-3	Solid	07/09/21 14:15	07/09/21 16:30	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Client Sample ID: ED-R1SD-SW013N-3

Lab Sample ID: 500-202095-1

Date Collected: 07/09/21 14:15

Matrix: Solid

Date Received: 07/09/21 16:30

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/09/21 17:20	07/12/21 12:58	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/09/21 17:20	07/12/21 12:58	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/09/21 17:20	07/12/21 12:58	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/09/21 17:20	07/12/21 12:58	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/09/21 17:20	07/12/21 12:58	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/09/21 17:20	07/12/21 12:58	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/09/21 17:20	07/12/21 12:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	07/09/21 17:20	07/12/21 12:58	20
DCB Decachlorobiphenyl	83		37 - 121	07/09/21 17:20	07/12/21 12:58	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

GC Semi VOA

Prep Batch: 608671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202095-1	ED-R1SD-SW013N-3	Total/NA	Solid	3541	
MB 500-608671/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-608671/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202095-1 MS	ED-R1SD-SW013N-3	Total/NA	Solid	3541	
500-202095-1 MSD	ED-R1SD-SW013N-3	Total/NA	Solid	3541	

Analysis Batch: 608853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202095-1	ED-R1SD-SW013N-3	Total/NA	Solid	8082A	608671
MB 500-608671/1-A	Method Blank	Total/NA	Solid	8082A	608671
LCS 500-608671/2-A	Lab Control Sample	Total/NA	Solid	8082A	608671
500-202095-1 MS	ED-R1SD-SW013N-3	Total/NA	Solid	8082A	608671
500-202095-1 MSD	ED-R1SD-SW013N-3	Total/NA	Solid	8082A	608671

General Chemistry

Analysis Batch: 608778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202095-1	ED-R1SD-SW013N-3	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-202095-1	ED-R1SD-SW013N-3	71	83
500-202095-1 MS	ED-R1SD-SW013N-3	66	82
500-202095-1 MSD	ED-R1SD-SW013N-3	63	75
LCS 500-608671/2-A	Lab Control Sample	68	80
MB 500-608671/1-A	Method Blank	64	76

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-608671/1-A
Matrix: Solid
Analysis Batch: 608853

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608671

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/09/21 17:20	07/12/21 10:08		20	
PCB-1221	<0.33		0.33		mg/Kg		07/09/21 17:20	07/12/21 10:08		20	
PCB-1232	<0.33		0.33		mg/Kg		07/09/21 17:20	07/12/21 10:08		20	
PCB-1242	<0.33		0.33		mg/Kg		07/09/21 17:20	07/12/21 10:08		20	
PCB-1248	<0.33		0.33		mg/Kg		07/09/21 17:20	07/12/21 10:08		20	
PCB-1254	<0.33		0.33		mg/Kg		07/09/21 17:20	07/12/21 10:08		20	
PCB-1260	<0.33		0.33		mg/Kg		07/09/21 17:20	07/12/21 10:08		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	64		49 - 129	07/09/21 17:20	07/12/21 10:08		20	
DCB Decachlorobiphenyl	76		37 - 121	07/09/21 17:20	07/12/21 10:08		20	

Lab Sample ID: LCS 500-608671/2-A
Matrix: Solid
Analysis Batch: 608853

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608671

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.33		mg/Kg		80	57 - 120	
PCB-1260	1.67	1.47		mg/Kg		88	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	68		49 - 129
DCB Decachlorobiphenyl	80		37 - 121

Lab Sample ID: 500-202095-1 MS
Matrix: Solid
Analysis Batch: 608853

Client Sample ID: ED-R1SD-SW013N-3
Prep Type: Total/NA
Prep Batch: 608671

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.39		1.93	1.52		mg/Kg	☼	79	57 - 120	
PCB-1260	<0.39		1.93	1.65		mg/Kg	☼	85	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	66		49 - 129
DCB Decachlorobiphenyl	82		37 - 121

Lab Sample ID: 500-202095-1 MSD
Matrix: Solid
Analysis Batch: 608853

Client Sample ID: ED-R1SD-SW013N-3
Prep Type: Total/NA
Prep Batch: 608671

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.39		1.93	1.38		mg/Kg	☼	71	57 - 120	10	30	
PCB-1260	<0.39		1.93	1.48		mg/Kg	☼	77	61 - 125	11	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	63		49 - 129
DCB Decachlorobiphenyl	75		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Client Sample ID: ED-R1SD-SW013N-3

Lab Sample ID: 500-202095-1

Date Collected: 07/09/21 14:15

Matrix: Solid

Date Received: 07/09/21 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608778	07/12/21 07:00	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW013N-3

Lab Sample ID: 500-202095-1

Date Collected: 07/09/21 14:15

Matrix: Solid

Date Received: 07/09/21 16:30

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608671	07/09/21 17:20	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608853	07/12/21 12:58	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202095-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

2

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4

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14

15

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202095-1

Login Number: 202095

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-202181-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 1

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/19/2021 6:05:30 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Job ID: 500-202181-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202181-1

Comments

No additional comments.

Receipt

The samples were received on 7/12/2021 12:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

Receipt Exceptions

The report will be revised to correct the the sample IDs on the following samples per COC. ED-R1SD-SW087N-1 (500-202181-11), ED-R1SD-SW104S-1 (500-202181-16)

GC Semi VOA

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW031N-2 (500-202181-1), ED-R1SD-SW038S-2 (500-202181-3), ED-R1SD-SW039N-2 (500-202181-4), ED-R1SD-SW040S-2 (500-202181-5), ED-R1SD-SW047N-2 (500-202181-6), ED-R1SD-SW050S-2 (500-202181-7), ED-R1SD-SW051N-2 (500-202181-8), ED-R1SD-SW053N-2 (500-202181-9), ED-R1SD-SW064S-2 (500-202181-10), ED-R1SD-SW100S-1 (500-202181-14), ED-R1SD-SW104S (500-202181-16), ED-R1SD-SW106S (500-202181-18), ED-R1SD-SW107N (500-202181-19) and ED-R1SD-SW108S (500-202181-20).

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1232: ED-R1SD-SW100S-1 (500-202181-14).

Method 8082A: The following samples required a mercury clean-up, via EPA Method 3660A, to reduce matrix interferences caused by sulfur: ED-R1SD-SW100S-1 (500-202181-14) and ED-R1SD-SW108S (500-202181-20). The reagent lot number used was: SLCG3578.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following samples were outside control limits: ED-R1SD-SW106S (500-202181-18) and ED-R1SD-SW108S (500-202181-20). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW031N-2

Lab Sample ID: 500-202181-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.50		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW032S-2

Lab Sample ID: 500-202181-2

No Detections.

Client Sample ID: ED-R1SD-SW038S-2

Lab Sample ID: 500-202181-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.75		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW039N-2

Lab Sample ID: 500-202181-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.0		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW040S-2

Lab Sample ID: 500-202181-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.61		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW047N-2

Lab Sample ID: 500-202181-6

No Detections.

Client Sample ID: ED-R1SD-SW050S-2

Lab Sample ID: 500-202181-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.61		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW051N-2

Lab Sample ID: 500-202181-8

No Detections.

Client Sample ID: ED-R1SD-SW053N-2

Lab Sample ID: 500-202181-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.49		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW064S-2

Lab Sample ID: 500-202181-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.1		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW087N-1

Lab Sample ID: 500-202181-11

No Detections.

Client Sample ID: ED-R1SD-SW089N-1

Lab Sample ID: 500-202181-12

No Detections.

Client Sample ID: ED-R1SD-SW091N-1

Lab Sample ID: 500-202181-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW100S-1

Lab Sample ID: 500-202181-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	4.4		0.42		mg/Kg	20	✳	8082A	Total/NA
PCB-1248	1.9		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW101N-1

Lab Sample ID: 500-202181-15

No Detections.

Client Sample ID: ED-R1SD-SW104S

Lab Sample ID: 500-202181-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	5.6		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW105N

Lab Sample ID: 500-202181-17

No Detections.

Client Sample ID: ED-R1SD-SW106S

Lab Sample ID: 500-202181-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.91		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW107N

Lab Sample ID: 500-202181-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.59		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW108S

Lab Sample ID: 500-202181-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.45		0.42		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202181-1	ED-R1SD-SW031N-2	Solid	07/10/21 08:25	07/12/21 12:25	
500-202181-2	ED-R1SD-SW032S-2	Solid	07/10/21 08:37	07/12/21 12:25	
500-202181-3	ED-R1SD-SW038S-2	Solid	07/10/21 08:46	07/12/21 12:25	
500-202181-4	ED-R1SD-SW039N-2	Solid	07/10/21 08:52	07/12/21 12:25	
500-202181-5	ED-R1SD-SW040S-2	Solid	07/10/21 09:00	07/12/21 12:25	
500-202181-6	ED-R1SD-SW047N-2	Solid	07/10/21 09:08	07/12/21 12:25	
500-202181-7	ED-R1SD-SW050S-2	Solid	07/10/21 09:16	07/12/21 12:25	
500-202181-8	ED-R1SD-SW051N-2	Solid	07/10/21 09:30	07/12/21 12:25	
500-202181-9	ED-R1SD-SW053N-2	Solid	07/10/21 09:46	07/12/21 12:25	
500-202181-10	ED-R1SD-SW064S-2	Solid	07/10/21 10:01	07/12/21 12:25	
500-202181-11	ED-R1SD-SW087N-1	Solid	07/10/21 10:34	07/12/21 12:25	
500-202181-12	ED-R1SD-SW089N-1	Solid	07/10/21 10:46	07/12/21 12:25	
500-202181-13	ED-R1SD-SW091N-1	Solid	07/10/21 10:53	07/12/21 12:25	
500-202181-14	ED-R1SD-SW100S-1	Solid	07/10/21 11:10	07/12/21 12:25	
500-202181-15	ED-R1SD-SW101N-1	Solid	07/10/21 11:23	07/12/21 12:25	
500-202181-16	ED-R1SD-SW104S	Solid	07/10/21 11:30	07/12/21 12:25	
500-202181-17	ED-R1SD-SW105N	Solid	07/10/21 11:43	07/12/21 12:25	
500-202181-18	ED-R1SD-SW106S	Solid	07/10/21 11:46	07/12/21 12:25	
500-202181-19	ED-R1SD-SW107N	Solid	07/10/21 11:55	07/12/21 12:25	
500-202181-20	ED-R1SD-SW108S	Solid	07/10/21 12:00	07/12/21 12:25	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW031N-2

Lab Sample ID: 500-202181-1

Date Collected: 07/10/21 08:25

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 05:13	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 05:13	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 05:13	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 05:13	20
PCB-1248	0.50		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 05:13	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 05:13	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 05:13	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/12/21 16:35	07/13/21 05:13	20
DCB Decachlorobiphenyl	59		37 - 121	07/12/21 16:35	07/13/21 05:13	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW032S-2

Lab Sample ID: 500-202181-2

Date Collected: 07/10/21 08:37

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 88.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 05:29	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 05:29	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 05:29	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 05:29	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 05:29	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 05:29	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 05:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/12/21 16:35	07/13/21 05:29	20
DCB Decachlorobiphenyl	59		37 - 121	07/12/21 16:35	07/13/21 05:29	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW038S-2

Lab Sample ID: 500-202181-3

Date Collected: 07/10/21 08:46

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 84.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 05:44	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 05:44	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 05:44	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 05:44	20
PCB-1248	0.75		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 05:44	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 05:44	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 05:44	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	59		49 - 129	07/12/21 16:35	07/13/21 05:44	20
DCB Decachlorobiphenyl	49		37 - 121	07/12/21 16:35	07/13/21 05:44	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW039N-2

Lab Sample ID: 500-202181-4

Date Collected: 07/10/21 08:52

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:00	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:00	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:00	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:00	20
PCB-1248	1.0		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:00	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:00	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/12/21 16:35	07/13/21 06:00	20
DCB Decachlorobiphenyl	52		37 - 121	07/12/21 16:35	07/13/21 06:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW040S-2

Lab Sample ID: 500-202181-5

Date Collected: 07/10/21 09:00

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 84.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:15	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:15	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:15	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:15	20
PCB-1248	0.61		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:15	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:15	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/12/21 16:35	07/13/21 06:15	20
DCB Decachlorobiphenyl	60		37 - 121	07/12/21 16:35	07/13/21 06:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW047N-2

Lab Sample ID: 500-202181-6

Date Collected: 07/10/21 09:08

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:30	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:30	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:30	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:30	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:30	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:30	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 06:30	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/12/21 16:35	07/13/21 06:30	20
DCB Decachlorobiphenyl	54		37 - 121	07/12/21 16:35	07/13/21 06:30	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW050S-2

Lab Sample ID: 500-202181-7

Date Collected: 07/10/21 09:16

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:46	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:46	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:46	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:46	20
PCB-1248	0.61		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:46	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:46	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 06:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/12/21 16:35	07/13/21 06:46	20
DCB Decachlorobiphenyl	56		37 - 121	07/12/21 16:35	07/13/21 06:46	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW051N-2

Lab Sample ID: 500-202181-8

Date Collected: 07/10/21 09:30

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 82.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 07:01	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 07:01	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 07:01	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 07:01	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 07:01	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 07:01	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/12/21 16:35	07/13/21 07:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/12/21 16:35	07/13/21 07:01	20
DCB Decachlorobiphenyl	52		37 - 121	07/12/21 16:35	07/13/21 07:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW053N-2

Lab Sample ID: 500-202181-9

Date Collected: 07/10/21 09:46

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 07:17	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 07:17	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 07:17	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 07:17	20
PCB-1248	0.49		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 07:17	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 07:17	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 07:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	07/12/21 16:35	07/13/21 07:17	20
DCB Decachlorobiphenyl	56		37 - 121	07/12/21 16:35	07/13/21 07:17	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW064S-2

Lab Sample ID: 500-202181-10

Date Collected: 07/10/21 10:01

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 82.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 07:32	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 07:32	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 07:32	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 07:32	20
PCB-1248	1.1		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 07:32	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 07:32	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 07:32	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		49 - 129	07/12/21 16:35	07/13/21 07:32	20
DCB Decachlorobiphenyl	45		37 - 121	07/12/21 16:35	07/13/21 07:32	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW087N-1

Lab Sample ID: 500-202181-11

Date Collected: 07/10/21 10:34

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 07:47	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 07:47	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 07:47	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 07:47	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 07:47	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 07:47	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 07:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	52		49 - 129	07/12/21 16:35	07/13/21 07:47	20
DCB Decachlorobiphenyl	49		37 - 121	07/12/21 16:35	07/13/21 07:47	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW089N-1

Lab Sample ID: 500-202181-12

Date Collected: 07/10/21 10:46

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 87.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 08:03	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 08:03	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 08:03	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 08:03	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 08:03	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 08:03	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/12/21 16:35	07/13/21 08:03	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	50		49 - 129	07/12/21 16:35	07/13/21 08:03	20
DCB Decachlorobiphenyl	50		37 - 121	07/12/21 16:35	07/13/21 08:03	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW091N-1

Lab Sample ID: 500-202181-13

Date Collected: 07/10/21 10:53

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 85.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 08:34	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 08:34	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 08:34	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 08:34	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 08:34	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 08:34	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/12/21 16:35	07/13/21 08:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/12/21 16:35	07/13/21 08:34	20
DCB Decachlorobiphenyl	57		37 - 121	07/12/21 16:35	07/13/21 08:34	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW100S-1

Lab Sample ID: 500-202181-14

Date Collected: 07/10/21 11:10

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 11:54	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 11:54	20
PCB-1232	4.4		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 11:54	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 11:54	20
PCB-1248	1.9		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 11:54	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 11:54	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 11:54	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	07/12/21 16:35	07/13/21 11:54	20
DCB Decachlorobiphenyl	58		37 - 121	07/12/21 16:35	07/13/21 11:54	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW101N-1

Lab Sample ID: 500-202181-15

Date Collected: 07/10/21 11:23

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 82.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:05	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:05	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:05	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:05	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:05	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:05	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	53		49 - 129	07/12/21 16:35	07/13/21 09:05	20
DCB Decachlorobiphenyl	54		37 - 121	07/12/21 16:35	07/13/21 09:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW104S

Lab Sample ID: 500-202181-16

Date Collected: 07/10/21 11:30

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:20	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:20	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:20	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:20	20
PCB-1248	5.6		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:20	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:20	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/12/21 16:35	07/13/21 09:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/12/21 16:35	07/13/21 09:20	20
DCB Decachlorobiphenyl	78		37 - 121	07/12/21 16:35	07/13/21 09:20	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW105N

Lab Sample ID: 500-202181-17

Date Collected: 07/10/21 11:43

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 79.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 09:35	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 09:35	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 09:35	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 09:35	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 09:35	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 09:35	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 09:35	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	07/12/21 16:35	07/13/21 09:35	20
DCB Decachlorobiphenyl	54		37 - 121	07/12/21 16:35	07/13/21 09:35	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW106S

Lab Sample ID: 500-202181-18

Date Collected: 07/10/21 11:46

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 79.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:22	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:22	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:22	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:22	20
PCB-1248	0.91		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:22	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:22	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		49 - 129	07/12/21 16:35	07/13/21 10:22	20
DCB Decachlorobiphenyl	33	S1-	37 - 121	07/12/21 16:35	07/13/21 10:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW107N

Lab Sample ID: 500-202181-19

Date Collected: 07/10/21 11:55

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 79.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:37	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:37	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:37	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:37	20
PCB-1248	0.59		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:37	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:37	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 10:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/12/21 16:35	07/13/21 10:37	20
DCB Decachlorobiphenyl	74		37 - 121	07/12/21 16:35	07/13/21 10:37	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW108S

Lab Sample ID: 500-202181-20

Date Collected: 07/10/21 12:00

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 78.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 12:10	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 12:10	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 12:10	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 12:10	20
PCB-1248	0.45		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 12:10	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 12:10	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/12/21 16:35	07/13/21 12:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	55		49 - 129	07/12/21 16:35	07/13/21 12:10	20
DCB Decachlorobiphenyl	25	S1-	37 - 121	07/12/21 16:35	07/13/21 12:10	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

GC Semi VOA

Prep Batch: 608956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-1	ED-R1SD-SW031N-2	Total/NA	Solid	3541	
500-202181-2	ED-R1SD-SW032S-2	Total/NA	Solid	3541	
500-202181-3	ED-R1SD-SW038S-2	Total/NA	Solid	3541	
500-202181-4	ED-R1SD-SW039N-2	Total/NA	Solid	3541	
500-202181-5	ED-R1SD-SW040S-2	Total/NA	Solid	3541	
500-202181-6	ED-R1SD-SW047N-2	Total/NA	Solid	3541	
500-202181-7	ED-R1SD-SW050S-2	Total/NA	Solid	3541	
500-202181-8	ED-R1SD-SW051N-2	Total/NA	Solid	3541	
500-202181-9	ED-R1SD-SW053N-2	Total/NA	Solid	3541	
500-202181-10	ED-R1SD-SW064S-2	Total/NA	Solid	3541	
500-202181-11	ED-R1SD-SW087N-1	Total/NA	Solid	3541	
500-202181-12	ED-R1SD-SW089N-1	Total/NA	Solid	3541	
500-202181-13	ED-R1SD-SW091N-1	Total/NA	Solid	3541	
500-202181-14	ED-R1SD-SW100S-1	Total/NA	Solid	3541	
500-202181-15	ED-R1SD-SW101N-1	Total/NA	Solid	3541	
500-202181-16	ED-R1SD-SW104S	Total/NA	Solid	3541	
500-202181-17	ED-R1SD-SW105N	Total/NA	Solid	3541	
500-202181-18	ED-R1SD-SW106S	Total/NA	Solid	3541	
500-202181-19	ED-R1SD-SW107N	Total/NA	Solid	3541	
500-202181-20	ED-R1SD-SW108S	Total/NA	Solid	3541	
MB 500-608956/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-608956/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202181-17 MS	ED-R1SD-SW105N	Total/NA	Solid	3541	
500-202181-17 MSD	ED-R1SD-SW105N	Total/NA	Solid	3541	

Analysis Batch: 608992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-1	ED-R1SD-SW031N-2	Total/NA	Solid	8082A	608956
500-202181-2	ED-R1SD-SW032S-2	Total/NA	Solid	8082A	608956
500-202181-3	ED-R1SD-SW038S-2	Total/NA	Solid	8082A	608956
500-202181-4	ED-R1SD-SW039N-2	Total/NA	Solid	8082A	608956
500-202181-5	ED-R1SD-SW040S-2	Total/NA	Solid	8082A	608956
500-202181-6	ED-R1SD-SW047N-2	Total/NA	Solid	8082A	608956
500-202181-7	ED-R1SD-SW050S-2	Total/NA	Solid	8082A	608956
500-202181-8	ED-R1SD-SW051N-2	Total/NA	Solid	8082A	608956
500-202181-9	ED-R1SD-SW053N-2	Total/NA	Solid	8082A	608956
500-202181-10	ED-R1SD-SW064S-2	Total/NA	Solid	8082A	608956
500-202181-11	ED-R1SD-SW087N-1	Total/NA	Solid	8082A	608956
500-202181-12	ED-R1SD-SW089N-1	Total/NA	Solid	8082A	608956
500-202181-13	ED-R1SD-SW091N-1	Total/NA	Solid	8082A	608956
500-202181-14	ED-R1SD-SW100S-1	Total/NA	Solid	8082A	608956
500-202181-15	ED-R1SD-SW101N-1	Total/NA	Solid	8082A	608956
500-202181-16	ED-R1SD-SW104S	Total/NA	Solid	8082A	608956
500-202181-17	ED-R1SD-SW105N	Total/NA	Solid	8082A	608956
500-202181-18	ED-R1SD-SW106S	Total/NA	Solid	8082A	608956
500-202181-19	ED-R1SD-SW107N	Total/NA	Solid	8082A	608956
500-202181-20	ED-R1SD-SW108S	Total/NA	Solid	8082A	608956
MB 500-608956/1-A	Method Blank	Total/NA	Solid	8082A	608956
LCS 500-608956/2-A	Lab Control Sample	Total/NA	Solid	8082A	608956
500-202181-17 MS	ED-R1SD-SW105N	Total/NA	Solid	8082A	608956
500-202181-17 MSD	ED-R1SD-SW105N	Total/NA	Solid	8082A	608956

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

General Chemistry

Analysis Batch: 608986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-1	ED-R1SD-SW031N-2	Total/NA	Solid	Moisture	
500-202181-2	ED-R1SD-SW032S-2	Total/NA	Solid	Moisture	
500-202181-3	ED-R1SD-SW038S-2	Total/NA	Solid	Moisture	
500-202181-4	ED-R1SD-SW039N-2	Total/NA	Solid	Moisture	
500-202181-5	ED-R1SD-SW040S-2	Total/NA	Solid	Moisture	
500-202181-6	ED-R1SD-SW047N-2	Total/NA	Solid	Moisture	
500-202181-7	ED-R1SD-SW050S-2	Total/NA	Solid	Moisture	
500-202181-8	ED-R1SD-SW051N-2	Total/NA	Solid	Moisture	
500-202181-9	ED-R1SD-SW053N-2	Total/NA	Solid	Moisture	
500-202181-10	ED-R1SD-SW064S-2	Total/NA	Solid	Moisture	
500-202181-11	ED-R1SD-SW087N-1	Total/NA	Solid	Moisture	
500-202181-12	ED-R1SD-SW089N-1	Total/NA	Solid	Moisture	
500-202181-13	ED-R1SD-SW091N-1	Total/NA	Solid	Moisture	
500-202181-14	ED-R1SD-SW100S-1	Total/NA	Solid	Moisture	
500-202181-15	ED-R1SD-SW101N-1	Total/NA	Solid	Moisture	

Analysis Batch: 608991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-16	ED-R1SD-SW104S	Total/NA	Solid	Moisture	
500-202181-17	ED-R1SD-SW105N	Total/NA	Solid	Moisture	
500-202181-18	ED-R1SD-SW106S	Total/NA	Solid	Moisture	
500-202181-19	ED-R1SD-SW107N	Total/NA	Solid	Moisture	
500-202181-20	ED-R1SD-SW108S	Total/NA	Solid	Moisture	
500-202181-17 DU	ED-R1SD-SW105N	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (49-129)	DCBP1 (37-121)
500-202181-1	ED-R1SD-SW031N-2	74	59
500-202181-2	ED-R1SD-SW032S-2	75	59
500-202181-3	ED-R1SD-SW038S-2	59	49
500-202181-4	ED-R1SD-SW039N-2	69	52
500-202181-6	ED-R1SD-SW047N-2	67	54
500-202181-8	ED-R1SD-SW051N-2	60	52
500-202181-9	ED-R1SD-SW053N-2	62	56
500-202181-10	ED-R1SD-SW064S-2	57	45
500-202181-11	ED-R1SD-SW087N-1	52	49
500-202181-12	ED-R1SD-SW089N-1	50	50
500-202181-13	ED-R1SD-SW091N-1	60	57
500-202181-14	ED-R1SD-SW100S-1	65	58
500-202181-15	ED-R1SD-SW101N-1	53	54
500-202181-17	ED-R1SD-SW105N	62	54
500-202181-17 MS	ED-R1SD-SW105N	60	54
500-202181-17 MSD	ED-R1SD-SW105N	67	58
500-202181-18	ED-R1SD-SW106S	57	33 S1-
500-202181-20	ED-R1SD-SW108S	55	25 S1-
LCS 500-608956/2-A	Lab Control Sample	62	52
MB 500-608956/1-A	Method Blank	85	66

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX2 (49-129)	DCBP2 (37-121)
500-202181-5	ED-R1SD-SW040S-2	72	60
500-202181-7	ED-R1SD-SW050S-2	66	56
500-202181-16	ED-R1SD-SW104S	66	78
500-202181-19	ED-R1SD-SW107N	72	74

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-608956/1-A
Matrix: Solid
Analysis Batch: 608992

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 608956

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/12/21 16:35	07/13/21 04:42		20	
PCB-1221	<0.33		0.33		mg/Kg		07/12/21 16:35	07/13/21 04:42		20	
PCB-1232	<0.33		0.33		mg/Kg		07/12/21 16:35	07/13/21 04:42		20	
PCB-1242	<0.33		0.33		mg/Kg		07/12/21 16:35	07/13/21 04:42		20	
PCB-1248	<0.33		0.33		mg/Kg		07/12/21 16:35	07/13/21 04:42		20	
PCB-1254	<0.33		0.33		mg/Kg		07/12/21 16:35	07/13/21 04:42		20	
PCB-1260	<0.33		0.33		mg/Kg		07/12/21 16:35	07/13/21 04:42		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	85		49 - 129	07/12/21 16:35		07/13/21 04:42		20
DCB Decachlorobiphenyl	66		37 - 121	07/12/21 16:35		07/13/21 04:42		20

Lab Sample ID: LCS 500-608956/2-A
Matrix: Solid
Analysis Batch: 608992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 608956

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.11		mg/Kg		67	57 - 120	
PCB-1260	1.67	1.15		mg/Kg		69	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	62		49 - 129
DCB Decachlorobiphenyl	52		37 - 121

Lab Sample ID: 500-202181-17 MS
Matrix: Solid
Analysis Batch: 608992

Client Sample ID: ED-R1SD-SW105N
Prep Type: Total/NA
Prep Batch: 608956

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.42		2.07	1.58		mg/Kg	☼	76	57 - 120	
PCB-1260	<0.42		2.07	1.56		mg/Kg	☼	75	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	60		49 - 129
DCB Decachlorobiphenyl	54		37 - 121

Lab Sample ID: 500-202181-17 MSD
Matrix: Solid
Analysis Batch: 608992

Client Sample ID: ED-R1SD-SW105N
Prep Type: Total/NA
Prep Batch: 608956

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.42		2.08	1.97		mg/Kg	☼	95	57 - 120	22	30	
PCB-1260	<0.42		2.08	1.71		mg/Kg	☼	82	61 - 125	9	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	67		49 - 129
DCB Decachlorobiphenyl	58		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW031N-2

Lab Sample ID: 500-202181-1

Date Collected: 07/10/21 08:25

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW031N-2

Lab Sample ID: 500-202181-1

Date Collected: 07/10/21 08:25

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 05:13	SS	TAL CHI

Client Sample ID: ED-R1SD-SW032S-2

Lab Sample ID: 500-202181-2

Date Collected: 07/10/21 08:37

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW032S-2

Lab Sample ID: 500-202181-2

Date Collected: 07/10/21 08:37

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 05:29	SS	TAL CHI

Client Sample ID: ED-R1SD-SW038S-2

Lab Sample ID: 500-202181-3

Date Collected: 07/10/21 08:46

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW038S-2

Lab Sample ID: 500-202181-3

Date Collected: 07/10/21 08:46

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 05:44	SS	TAL CHI

Client Sample ID: ED-R1SD-SW039N-2

Lab Sample ID: 500-202181-4

Date Collected: 07/10/21 08:52

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW039N-2

Lab Sample ID: 500-202181-4

Date Collected: 07/10/21 08:52

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 06:00	SS	TAL CHI

Client Sample ID: ED-R1SD-SW040S-2

Lab Sample ID: 500-202181-5

Date Collected: 07/10/21 09:00

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW040S-2

Lab Sample ID: 500-202181-5

Date Collected: 07/10/21 09:00

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 06:15	SS	TAL CHI

Client Sample ID: ED-R1SD-SW047N-2

Lab Sample ID: 500-202181-6

Date Collected: 07/10/21 09:08

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW047N-2

Lab Sample ID: 500-202181-6

Date Collected: 07/10/21 09:08

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 06:30	SS	TAL CHI

Client Sample ID: ED-R1SD-SW050S-2

Lab Sample ID: 500-202181-7

Date Collected: 07/10/21 09:16

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW050S-2

Lab Sample ID: 500-202181-7

Date Collected: 07/10/21 09:16

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 06:46	SS	TAL CHI

Client Sample ID: ED-R1SD-SW051N-2

Lab Sample ID: 500-202181-8

Date Collected: 07/10/21 09:30

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW051N-2

Lab Sample ID: 500-202181-8

Date Collected: 07/10/21 09:30

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 07:01	SS	TAL CHI

Client Sample ID: ED-R1SD-SW053N-2

Lab Sample ID: 500-202181-9

Date Collected: 07/10/21 09:46

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW053N-2

Lab Sample ID: 500-202181-9

Date Collected: 07/10/21 09:46

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 07:17	SS	TAL CHI

Client Sample ID: ED-R1SD-SW064S-2

Lab Sample ID: 500-202181-10

Date Collected: 07/10/21 10:01

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW064S-2

Lab Sample ID: 500-202181-10

Date Collected: 07/10/21 10:01

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 07:32	SS	TAL CHI

Client Sample ID: ED-R1SD-SW087N-1

Lab Sample ID: 500-202181-11

Date Collected: 07/10/21 10:34

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW087N-1

Lab Sample ID: 500-202181-11

Date Collected: 07/10/21 10:34

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 07:47	SS	TAL CHI

Client Sample ID: ED-R1SD-SW089N-1

Lab Sample ID: 500-202181-12

Date Collected: 07/10/21 10:46

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW089N-1

Lab Sample ID: 500-202181-12

Date Collected: 07/10/21 10:46

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 87.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 08:03	SS	TAL CHI

Client Sample ID: ED-R1SD-SW091N-1

Lab Sample ID: 500-202181-13

Date Collected: 07/10/21 10:53

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW091N-1

Lab Sample ID: 500-202181-13

Date Collected: 07/10/21 10:53

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 08:34	SS	TAL CHI

Client Sample ID: ED-R1SD-SW100S-1

Lab Sample ID: 500-202181-14

Date Collected: 07/10/21 11:10

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW100S-1

Lab Sample ID: 500-202181-14

Date Collected: 07/10/21 11:10

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 11:54	SS	TAL CHI

Client Sample ID: ED-R1SD-SW101N-1

Lab Sample ID: 500-202181-15

Date Collected: 07/10/21 11:23

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608986	07/12/21 21:10	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW101N-1

Lab Sample ID: 500-202181-15

Date Collected: 07/10/21 11:23

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 09:05	SS	TAL CHI

Client Sample ID: ED-R1SD-SW104S

Lab Sample ID: 500-202181-16

Date Collected: 07/10/21 11:30

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW104S

Lab Sample ID: 500-202181-16

Date Collected: 07/10/21 11:30

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 09:20	SS	TAL CHI

Client Sample ID: ED-R1SD-SW105N

Lab Sample ID: 500-202181-17

Date Collected: 07/10/21 11:43

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW105N

Lab Sample ID: 500-202181-17

Date Collected: 07/10/21 11:43

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 09:35	SS	TAL CHI

Client Sample ID: ED-R1SD-SW106S

Lab Sample ID: 500-202181-18

Date Collected: 07/10/21 11:46

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW106S

Lab Sample ID: 500-202181-18

Date Collected: 07/10/21 11:46

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 79.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 10:22	SS	TAL CHI

Client Sample ID: ED-R1SD-SW107N

Lab Sample ID: 500-202181-19

Date Collected: 07/10/21 11:55

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Client Sample ID: ED-R1SD-SW107N

Lab Sample ID: 500-202181-19

Date Collected: 07/10/21 11:55

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 10:37	SS	TAL CHI

Client Sample ID: ED-R1SD-SW108S

Lab Sample ID: 500-202181-20

Date Collected: 07/10/21 12:00

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW108S

Lab Sample ID: 500-202181-20

Date Collected: 07/10/21 12:00

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			608956	07/12/21 16:35	ACK	TAL CHI
Total/NA	Analysis	8082A		20	608992	07/13/21 12:10	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: J O'Brien		Lab PM: Kintz, Robin M		Carrier Tracking No(s): 500-202181 COC		COC No: 500-92290-41114 1		
Client Contact: Garrett Welch		Phone: 865-407-8861		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: Page 1 of 3		
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested				
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform: MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers		Preservation Codes A HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:		
City: Knoxville		TAT Requested (days):								
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required								
Email: gwelch@cecinc.com		WO #:								
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033								
Site:		SSOW#:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform: MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note
				Preservation Code:		X	N		X	Priority
1 ED-RISD - SW031N-2		7/10	0825	C	S				X	
2 ED-RISD - SW0323-2			0837	C	S				X	
3 ED-RISD - SW038S-2			0846	C	S				X	
4 ED-RISD - SW039N-2			0852	C	S				X	
5 ED-RISD - SW040S-2			0900	C	S				X	
6 ED-RISD - SW047N-2			0908	C	S				X	
7 ED-RISD - SW050S-2			0916	C	S				X	
8 ED-RISD - SW051N-2			0930	C	S				X	
9 ED-RISD - SW053N-2			0946	C	S				X	
10 ED-RISD - SW064S-2			1001	C	S				X	
11 ED-RISD - SW087N-1		↓	1034	C	S				X	↓
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)					Special Instructions/QC Requirements					
Empty Kit Relinquished by:			Date		Time		Method of Shipment:			
Relinquished by: Garrett Welch			Date/Time: 7/12		Time: 1114		Received by: B. N. ...		Date/Time: 7/12/21 1114	
Relinquished by: Garrett Welch			Date/Time: 7/12/21		Time: 1225		Received by: Garrett Welch		Date/Time: 7/12/21 1225	
Relinquished by:			Date/Time:		Time:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 41 of 44		Cooler Temperature(s) °C and Other Remarks: 2.0 → 2.2		7/19/2021 (Rev. 1)		

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <u>J O'Brien</u>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No. 500-92290-41114 1																					
Client Contact: Garrett Welch		Phone: <u>865-407-8861</u>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin		Page: <u>2 of 3</u>																					
Company: Civil & Environmental Consultants Inc		PWSID		Analysis Requested						Job #: <u>500-202181</u>																			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform: MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Preservation Codes		A HCL M - Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:											
Field Filtered Sample (Yes or No)																													
Perform: MS/MSD (Yes or No)																													
8092A - PCBs																													
City: Knoxville		TAT Requested (days)																											
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																											
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																											
Email: gwelch@cecinc.com		WO #:																											
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033																											
Site:		SSOW#:																											
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil)		BT=Tissue, AA=Air		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Total Number of containers		Special Instructions/Note									
						Preservation Code:																							
<u>12 ED-RISD - SW1009N-1 SW1009N-1</u>		<u>7/10</u>		<u>1046</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>		<u>Priority</u>									
<u>13 ED-RISD - SW1091N-1</u>				<u>1053</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
<u>14 ED-RISD - SW1005S-1</u>				<u>1110</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
<u>15 ED-RISD - SW1010N-1</u>				<u>1123</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
<u>16 ED-RISD - SW1045</u>				<u>1130</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
<u>17 ED-RISD - SW105N</u>				<u>1143</u>		<u>C S</u>		<u>S</u>		<u>X</u>		<u>X</u>						<u>3</u>											
<u>18 ED-RISD - SW106S</u>				<u>1146</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
<u>19 ED-RISD - SW107N</u>				<u>1155</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
<u>20 ED-RISD - SW108S</u>				<u>1200</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
<u>21 ED-RISD - SW109N</u>				<u>1210</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
<u>22 ED-RISD - SW112S</u>		<u>✓</u>		<u>1218</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>											
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																			
Deliverable Requested <u>I(II/III IV Other (specify)</u>										Special Instructions/QC Requirements																			
Empty Kit Relinquished by:					Date					Time					Method of Shipment.														
Relinquished by: <u>Johnny O'Brien</u>					Date/Time: <u>7/12 1114</u>					Company: <u>EAT</u>					Received by: <u>P. Neal</u>					Date/Time: <u>7/12/21 1114</u>					Company: <u>EAT</u>				
Relinquished by: <u>P. Neal</u>					Date/Time: <u>7/12/21 1225</u>					Company: <u>EAT</u>					Received by: <u>[Signature]</u>					Date/Time: <u>7/12/21 1225</u>					Company: <u>[Signature]</u>				
Relinquished by:					Date/Time:					Company:					Received by:					Date/Time:					Company:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No					Cooler Temperature(s) °C and Other Remarks										7/19/2021 (Rev. 1)									



Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <u>J O'Brien</u>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1																					
Client Contact: Garrett Welch		Phone: <u>865-407-8860</u>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin		Page: 3 of 3																					
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: <u>500-202181</u>																			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Preservation Codes		A - HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:											
Field Filtered Sample (Yes or No)																													
Perform MS/MSD (Yes or No)																													
8082A - PCBs																													
City: Knoxville		TAT Requested (days)																											
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																											
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																											
Email: gwelch@cecinc.com		WO #:																											
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033																											
Site		SSOW#:																											
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of containers		Special Instructions/Note											
						Preservation Code:																							
<u>23</u> ED-RISD-SW111N		<u>7/10</u>		<u>1223</u>		<u>C</u>		<u>S</u>		<u>X</u>		<u>X</u>				<u>1</u>													
<u>24</u> ED-RISD-SW112S				<u>1228</u>		<u>C</u>		<u>S</u>		<u>X</u>		<u>X</u>				<u>1</u>													
<u>25</u> ED-RISD-SW113N				<u>1232</u>		<u>C</u>		<u>S</u>		<u>X</u>		<u>X</u>				<u>3</u>													
<u>26</u> ED-RISD-SWDUP9				<u>-</u>		<u>C</u>		<u>S</u>		<u>X</u>		<u>X</u>				<u>1</u>													
<u>27</u> ED-RISD-SWDUP10				<u>-</u>		<u>C</u>		<u>S</u>		<u>X</u>		<u>X</u>				<u>1</u>													
<u>28</u> ED-RISD-EB15				<u>1512</u>		<u>G</u>		<u>W</u>		<u>X</u>		<u>X</u>				<u>2</u>													
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																			
Deliverable Requested I, II, III, IV, Other (specify)										Special Instructions/QC Requirements																			
Empty Kit Relinquished by:					Date:					Time					Method of Shipment.														
Relinquished by: <u>Jimmy Barron</u>					Date/Time: <u>7/12</u>					Company: <u>1115</u>					Received by: <u>R. Neal</u>					Date/Time: <u>7/12/21</u>					Company: <u>EA</u>				
Relinquished by: <u>R. Neal</u>					Date/Time: <u>7/12/21</u>					Company: <u>EA</u>					Received by: <u>J. Barron</u>					Date/Time: <u>7/12/21</u>					Company: <u>EA</u>				
Relinquished by:					Date/Time:					Company:					Received by:					Date/Time:					Company:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No					Cooler Temperature(s) °C and Other Remarks																			



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202181-1

Login Number: 202181

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-202181-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/14/2021 12:08:48 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Job ID: 500-202181-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202181-2

Comments

No additional comments.

Receipt

The samples were received on 7/12/2021 12:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

GC Semi VOA

Method 8082A: The following samples were reported from the primary column due to PCB-1016, PCB-1260 and DCB Decachlorobiphenyl recovering outside control limits for the continuing calibration verification (CCVIS) on the secondary column; therefore, the higher of the two results have been reported. ED-R1SD-SW109N (500-202181-21), ED-R1SD-SW111N (500-202181-23) and (CCVIS 500-609215/1)

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-SW109N (500-202181-21), ED-R1SD-SW110S (500-202181-22), ED-R1SD-SW111N (500-202181-23), ED-R1SD-SW112S (500-202181-24), ED-R1SD-SWDUP9 (500-202181-26) and ED-R1SD-SWDUP10 (500-202181-27).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SW109N

Lab Sample ID: 500-202181-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.91		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW110S

Lab Sample ID: 500-202181-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.1		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW111N

Lab Sample ID: 500-202181-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.66		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW112S

Lab Sample ID: 500-202181-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.9		0.42		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SW113N

Lab Sample ID: 500-202181-25

No Detections.

Client Sample ID: ED-R1SD-SWDUP9

Lab Sample ID: 500-202181-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	8.0		2.1		mg/Kg	100	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-SWDUP10

Lab Sample ID: 500-202181-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	3.1		0.42		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202181-21	ED-R1SD-SW109N	Solid	07/10/21 12:10	07/12/21 12:25	
500-202181-22	ED-R1SD-SW110S	Solid	07/10/21 12:18	07/12/21 12:25	
500-202181-23	ED-R1SD-SW111N	Solid	07/10/21 12:23	07/12/21 12:25	
500-202181-24	ED-R1SD-SW112S	Solid	07/10/21 12:28	07/12/21 12:25	
500-202181-25	ED-R1SD-SW113N	Solid	07/10/21 12:32	07/12/21 12:25	
500-202181-26	ED-R1SD-SWDUP9	Solid	07/10/21 00:00	07/12/21 12:25	
500-202181-27	ED-R1SD-SWDUP10	Solid	07/10/21 00:00	07/12/21 12:25	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SW109N

Lab Sample ID: 500-202181-21

Date Collected: 07/10/21 12:10

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/13/21 23:47	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/13/21 23:47	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/13/21 23:47	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/13/21 23:47	20
PCB-1248	0.91		0.41		mg/Kg	☼	07/13/21 16:43	07/13/21 23:47	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/13/21 23:47	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/13/21 23:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	07/13/21 16:43	07/13/21 23:47	20
DCB Decachlorobiphenyl	78		37 - 121	07/13/21 16:43	07/13/21 23:47	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SW110S

Lab Sample ID: 500-202181-22

Date Collected: 07/10/21 12:18

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 00:02	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 00:02	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 00:02	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 00:02	20
PCB-1248	1.1		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 00:02	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 00:02	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 00:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/13/21 16:43	07/14/21 00:02	20
DCB Decachlorobiphenyl	64		37 - 121	07/13/21 16:43	07/14/21 00:02	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SW111N

Lab Sample ID: 500-202181-23

Date Collected: 07/10/21 12:23

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 84.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 00:18	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 00:18	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 00:18	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 00:18	20
PCB-1248	0.66		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 00:18	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 00:18	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 00:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/13/21 16:43	07/14/21 00:18	20
DCB Decachlorobiphenyl	70		37 - 121	07/13/21 16:43	07/14/21 00:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SW112S

Lab Sample ID: 500-202181-24

Date Collected: 07/10/21 12:28

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 78.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 00:33	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 00:33	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 00:33	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 00:33	20
PCB-1248	1.9		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 00:33	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 00:33	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 00:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/13/21 16:43	07/14/21 00:33	20
DCB Decachlorobiphenyl	73		37 - 121	07/13/21 16:43	07/14/21 00:33	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SW113N

Lab Sample ID: 500-202181-25

Date Collected: 07/10/21 12:32

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 00:49	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 00:49	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 00:49	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 00:49	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 00:49	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 00:49	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 00:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	07/13/21 16:43	07/14/21 00:49	20
DCB Decachlorobiphenyl	65		37 - 121	07/13/21 16:43	07/14/21 00:49	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SWDUP9

Lab Sample ID: 500-202181-26

Date Collected: 07/10/21 00:00

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<2.1		2.1		mg/Kg	☼	07/13/21 16:43	07/14/21 07:09	100
PCB-1221	<2.1		2.1		mg/Kg	☼	07/13/21 16:43	07/14/21 07:09	100
PCB-1232	<2.1		2.1		mg/Kg	☼	07/13/21 16:43	07/14/21 07:09	100
PCB-1242	<2.1		2.1		mg/Kg	☼	07/13/21 16:43	07/14/21 07:09	100
PCB-1248	8.0		2.1		mg/Kg	☼	07/13/21 16:43	07/14/21 07:09	100
PCB-1254	<2.1		2.1		mg/Kg	☼	07/13/21 16:43	07/14/21 07:09	100
PCB-1260	<2.1		2.1		mg/Kg	☼	07/13/21 16:43	07/14/21 07:09	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	07/13/21 16:43	07/14/21 07:09	100
DCB Decachlorobiphenyl	78		37 - 121	07/13/21 16:43	07/14/21 07:09	100

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SWDUP10

Lab Sample ID: 500-202181-27

Date Collected: 07/10/21 00:00

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 79.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 01:50	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 01:50	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 01:50	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 01:50	20
PCB-1248	3.1		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 01:50	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 01:50	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 01:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	07/13/21 16:43	07/14/21 01:50	20
DCB Decachlorobiphenyl	86		37 - 121	07/13/21 16:43	07/14/21 01:50	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

GC Semi VOA

Prep Batch: 609194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-21	ED-R1SD-SW109N	Total/NA	Solid	3541	
500-202181-22	ED-R1SD-SW110S	Total/NA	Solid	3541	
500-202181-23	ED-R1SD-SW111N	Total/NA	Solid	3541	
500-202181-24	ED-R1SD-SW112S	Total/NA	Solid	3541	
500-202181-25	ED-R1SD-SW113N	Total/NA	Solid	3541	
500-202181-26	ED-R1SD-SWDUP9	Total/NA	Solid	3541	
500-202181-27	ED-R1SD-SWDUP10	Total/NA	Solid	3541	
MB 500-609194/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-609194/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202181-25 MS	ED-R1SD-SW113N	Total/NA	Solid	3541	
500-202181-25 MSD	ED-R1SD-SW113N	Total/NA	Solid	3541	

Analysis Batch: 609215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-21	ED-R1SD-SW109N	Total/NA	Solid	8082A	609194
500-202181-22	ED-R1SD-SW110S	Total/NA	Solid	8082A	609194
500-202181-23	ED-R1SD-SW111N	Total/NA	Solid	8082A	609194
500-202181-24	ED-R1SD-SW112S	Total/NA	Solid	8082A	609194
500-202181-25	ED-R1SD-SW113N	Total/NA	Solid	8082A	609194
500-202181-26	ED-R1SD-SWDUP9	Total/NA	Solid	8082A	609194
500-202181-27	ED-R1SD-SWDUP10	Total/NA	Solid	8082A	609194
MB 500-609194/1-A	Method Blank	Total/NA	Solid	8082A	609194
LCS 500-609194/2-A	Lab Control Sample	Total/NA	Solid	8082A	609194
500-202181-25 MS	ED-R1SD-SW113N	Total/NA	Solid	8082A	609194
500-202181-25 MSD	ED-R1SD-SW113N	Total/NA	Solid	8082A	609194

General Chemistry

Analysis Batch: 608991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-21	ED-R1SD-SW109N	Total/NA	Solid	Moisture	
500-202181-22	ED-R1SD-SW110S	Total/NA	Solid	Moisture	
500-202181-23	ED-R1SD-SW111N	Total/NA	Solid	Moisture	
500-202181-24	ED-R1SD-SW112S	Total/NA	Solid	Moisture	
500-202181-25	ED-R1SD-SW113N	Total/NA	Solid	Moisture	
500-202181-26	ED-R1SD-SWDUP9	Total/NA	Solid	Moisture	
500-202181-27	ED-R1SD-SWDUP10	Total/NA	Solid	Moisture	
500-202181-25 DU	ED-R1SD-SW113N	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-202181-21	ED-R1SD-SW109N	70	78
500-202181-22	ED-R1SD-SW110S	66	64
500-202181-23	ED-R1SD-SW111N	72	70
500-202181-24	ED-R1SD-SW112S	66	73
500-202181-25	ED-R1SD-SW113N	63	65
500-202181-25 MS	ED-R1SD-SW113N	74	87
500-202181-25 MSD	ED-R1SD-SW113N	65	63
500-202181-26	ED-R1SD-SWDUP9	68	78
500-202181-27	ED-R1SD-SWDUP10	68	86
LCS 500-609194/2-A	Lab Control Sample	75	87
MB 500-609194/1-A	Method Blank	76	79

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-609194/1-A
Matrix: Solid
Analysis Batch: 609215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609194

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1221	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1232	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1242	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1248	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1254	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1260	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	76		49 - 129	07/13/21 16:43	07/13/21 23:16		20	
DCB Decachlorobiphenyl	79		37 - 121	07/13/21 16:43	07/13/21 23:16		20	

Lab Sample ID: LCS 500-609194/2-A
Matrix: Solid
Analysis Batch: 609215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609194

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.21		mg/Kg		73	57 - 120	
PCB-1260	1.67	1.38		mg/Kg		83	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	75		49 - 129
DCB Decachlorobiphenyl	87		37 - 121

Lab Sample ID: 500-202181-25 MS
Matrix: Solid
Analysis Batch: 609215

Client Sample ID: ED-R1SD-SW113N
Prep Type: Total/NA
Prep Batch: 609194

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.39		1.94	1.83		mg/Kg	☼	94	57 - 120	
PCB-1260	<0.39		1.94	1.72		mg/Kg	☼	89	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	74		49 - 129
DCB Decachlorobiphenyl	87		37 - 121

Lab Sample ID: 500-202181-25 MSD
Matrix: Solid
Analysis Batch: 609215

Client Sample ID: ED-R1SD-SW113N
Prep Type: Total/NA
Prep Batch: 609194

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.39		1.93	1.64		mg/Kg	☼	85	57 - 120	11	30	
PCB-1260	<0.39		1.93	1.30		mg/Kg	☼	67	61 - 125	28	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	65		49 - 129
DCB Decachlorobiphenyl	63		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SW109N

Lab Sample ID: 500-202181-21

Date Collected: 07/10/21 12:10

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW109N

Lab Sample ID: 500-202181-21

Date Collected: 07/10/21 12:10

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/13/21 23:47	SS	TAL CHI

Client Sample ID: ED-R1SD-SW110S

Lab Sample ID: 500-202181-22

Date Collected: 07/10/21 12:18

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW110S

Lab Sample ID: 500-202181-22

Date Collected: 07/10/21 12:18

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 00:02	SS	TAL CHI

Client Sample ID: ED-R1SD-SW111N

Lab Sample ID: 500-202181-23

Date Collected: 07/10/21 12:23

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW111N

Lab Sample ID: 500-202181-23

Date Collected: 07/10/21 12:23

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 00:18	SS	TAL CHI

Client Sample ID: ED-R1SD-SW112S

Lab Sample ID: 500-202181-24

Date Collected: 07/10/21 12:28

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SW112S

Lab Sample ID: 500-202181-24

Date Collected: 07/10/21 12:28

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 00:33	SS	TAL CHI

Client Sample ID: ED-R1SD-SW113N

Lab Sample ID: 500-202181-25

Date Collected: 07/10/21 12:32

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Client Sample ID: ED-R1SD-SW113N

Lab Sample ID: 500-202181-25

Date Collected: 07/10/21 12:32

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 00:49	SS	TAL CHI

Client Sample ID: ED-R1SD-SWDUP9

Lab Sample ID: 500-202181-26

Date Collected: 07/10/21 00:00

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Client Sample ID: ED-R1SD-SWDUP9

Lab Sample ID: 500-202181-26

Date Collected: 07/10/21 00:00

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		100	609215	07/14/21 07:09	SS	TAL CHI

Client Sample ID: ED-R1SD-SWDUP10

Lab Sample ID: 500-202181-27

Date Collected: 07/10/21 00:00

Matrix: Solid

Date Received: 07/12/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	608991	07/12/21 21:44	PFK	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Client Sample ID: ED-R1SD-SWDUP10

Lab Sample ID: 500-202181-27

Date Collected: 07/10/21 00:00

Matrix: Solid

Date Received: 07/12/21 12:25

Percent Solids: 79.7

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 01:50	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: J O'Brien		Lab PM: Kintz, Robin M		Carrier Tracking No(s): 500-202181 COC		COC No: 500-92290-41114 1		
Client Contact: Garrett Welch		Phone: 865-407-8861		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: Page 1 of 3		
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested				
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform: MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers		Preservation Codes A HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:		
City: Knoxville		TAT Requested (days):								
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required								
Email: gwelch@cecinc.com		WO #:								
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033								
Site:		SSOW#:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform: MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note
				Preservation Code:		X	N		X	Priority
1 ED-RISD - SW031N-2		7/10	0825	C	S				1	
2 ED-RISD - SW0323-2			0837	C	S				1	
3 ED-RISD - SW038S-2			0846	C	S				1	
4 ED-RISD - SW039N-2			0852	C	S				1	
5 ED-RISD - SW040S-2			0900	C	S				1	
6 ED-RISD - SW047N-2			0908	C	S				1	
7 ED-RISD - SW050S-2			0916	C	S				1	
8 ED-RISD - SW051N-2			0930	C	S				1	
9 ED-RISD - SW053N-2			0946	C	S				1	
10 ED-RISD - SW064S-2			1001	C	S				1	
11 ED-RISD - SW087N-1		↓	1034	C	S				1	↓
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)					Special Instructions/QC Requirements					
Empty Kit Relinquished by:			Date		Time		Method of Shipment:			
Relinquished by: <i>Garrett Welch</i>		Date/Time: 7/12		Company: <i>CEC</i>		Received by: <i>B. N. ...</i>		Date/Time: 7/12/21 11/14		Company: <i>ETA</i>
Relinquished by: <i>Robin Kintz</i>		Date/Time: 7/12/21		Company: <i>ETA</i>		Received by: <i>Robin Kintz</i>		Date/Time: 7/12/21 1225		Company: <i>ETA</i>
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 22 of 25		Cooler Temperature(s) °C and Other Remarks: 2.0 → 2.2		7/14/2021		

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



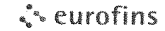
Client Information		Sampler: <u>J O'Brien</u>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No. 500-92290-41114 1													
Client Contact: Garrett Welch		Phone: <u>865-407-8861</u>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin		Page: <u>2 of 3</u>													
Company: Civil & Environmental Consultants Inc		PWSID		Analysis Requested						Job #: <u>500-202181</u>											
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform: MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Preservation Codes		A HCL M - Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)			
Field Filtered Sample (Yes or No)																					
Perform: MS/MSD (Yes or No)																					
8092A - PCBs																					
City: Knoxville		TAT Requested (days)																			
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																			
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																			
Email: gwelch@cecinc.com		WO #:																			
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033																			
Site:		SSOW#:																			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil)		BT=Tissue, AA=Air		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Total Number of containers		Special Instructions/Note	
						Preservation Code															
<u>12 ED-RISD - SW1009N-1 SW1009N-1</u>		<u>7/10</u>		<u>1046</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>		<u>Priority</u>	
<u>13 ED-RISD - SW1091N-1</u>				<u>1053</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
<u>14 ED-RISD - SW1005S-1</u>				<u>1110</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
<u>15 ED-RISD - SW1010N-1</u>				<u>1123</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
<u>16 ED-RISD - SW1045</u>				<u>1130</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
<u>17 ED-RISD - SW105N</u>				<u>1143</u>		<u>C</u>		<u>S</u>		<u>X</u>		<u>X</u>						<u>3</u>			
<u>18 ED-RISD - SW106S</u>				<u>1146</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
<u>19 ED-RISD - SW107N</u>				<u>1155</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
<u>20 ED-RISD - SW108S</u>				<u>1200</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
<u>21 ED-RISD - SW109N</u>				<u>1210</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
<u>22 ED-RISD - SW112S</u>		<u>✓</u>		<u>1218</u>		<u>C</u>		<u>S</u>						<u>X</u>				<u>1</u>			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)															
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months															
Deliverable Requested <u>I(II/III IV Other (specify)</u>						Special Instructions/QC Requirements															
Empty Kit Relinquished by:		Date		Time		Method of Shipment.															
Relinquished by: <u>Johnny O'Brien</u>		Date/Time: <u>7/12</u>		Company: <u>1114</u>		Received by: <u>P. Neal</u>		Date/Time: <u>7/12/21</u>		Company: <u>1114</u>		Company: <u>ETA</u>									
Relinquished by: <u>P. Neal</u>		Date/Time: <u>7/12/21</u>		Company: <u>1225</u>		Received by: <u>ETA</u>		Date/Time: <u>7/12/21</u>		Company: <u>1225</u>		Company: <u>ETA</u>									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:		Company:									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 23 of 25				Cooler Temperature(s) °C and Other Remarks				7/14/2021									



Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <u>J O'Brien</u>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1											
Client Contact: Garrett Welch		Phone: <u>865-407-8860</u>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin		Page: 3 of 3											
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: <u>500-202/81</u>									
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Preservation Codes		A - HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:	
Field Filtered Sample (Yes or No)																			
Perform MS/MSD (Yes or No)																			
8082A - PCBs																			
City: Knoxville		TAT Requested (days)																	
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																	
Email: gwelch@cecinc.com		WO #:																	
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033																	
Site:		SSOW#:																	
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note									
				Preservation Code:															
23	ED-RISD-SW11N	7/10	1223	C	S				1										
24	ED-RISD-SW11ZS	↓	1228	C	S				1										
25	ED-RISD-SW113N	↓	1232	C	S	X	X		3										
26	ED-RISD-SWDUP9	↓	-	C	S	X			1										
27	ED-RISD-SWDUP10	↓	-	C	S	X			1										
28	ED-RISD-EB15	↓	1512	G	W	X			2										
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months													
Deliverable Requested I, II, III, IV, Other (specify)				Special Instructions/QC Requirements															
Empty Kit Relinquished by:		Date:		Time		Method of Shipment:													
Relinquished by: <u>Jimmy Barron</u>		Date/Time: <u>7/12 1115</u>		Company: <u>EA</u>		Received by: <u>R. Neal</u>		Date/Time: <u>7/12/21 1115</u>		Company: <u>EA</u>									
Relinquished by: <u>R. Neal</u>		Date/Time: <u>7/12/21 1225</u>		Company: <u>EA</u>		Received by: <u>J. Barron</u>		Date/Time: <u>7/12/21 1225</u>		Company: <u>EA</u>									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks															



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202181-2

Login Number: 202181

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

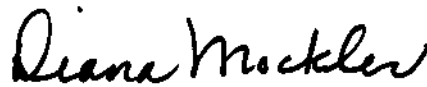
Laboratory Job ID: 500-202181-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

7/16/2021 11:41:53 AM

Diana Mockler, Project Manager I
(219)252-7570

Diana.Mockler@Eurofinset.com

Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Job ID: 500-202181-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202181-3

Comments

No additional comments.

Receipt

The samples were received on 7/12/2021 12:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.2° C.

GC Semi VOA

Method 8082A: The continuing calibration verification (CCV) associated with batch 500-609552 recovered above the upper control limit for PCB-1260 and DCB Decachlorobiphenyl. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: ED-R1SD-EB15 (500-202181-28) and (CCVIS 500-609552/2).

Method 8082A: The laboratory control sample duplicate (LCSD) for preparation batch 500-609347 and analytical batch 500-609552 recovered outside control limits for the following analytes: PCB-1260. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Client Sample ID: ED-R1SD-EB15

Lab Sample ID: 500-202181-28

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202181-28	ED-R1SD-EB15	Water	07/10/21 15:22	07/12/21 12:25	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Client Sample ID: ED-R1SD-EB15

Lab Sample ID: 500-202181-28

Date Collected: 07/10/21 15:22

Matrix: Water

Date Received: 07/12/21 12:25

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00043		0.00043		mg/L		07/14/21 11:57	07/15/21 13:20	1
PCB-1221	<0.00043		0.00043		mg/L		07/14/21 11:57	07/15/21 13:20	1
PCB-1232	<0.00043		0.00043		mg/L		07/14/21 11:57	07/15/21 13:20	1
PCB-1242	<0.00043		0.00043		mg/L		07/14/21 11:57	07/15/21 13:20	1
PCB-1248	<0.00043		0.00043		mg/L		07/14/21 11:57	07/15/21 13:20	1
PCB-1254	<0.00043		0.00043		mg/L		07/14/21 11:57	07/15/21 13:20	1
PCB-1260	<0.00043	*+	0.00043		mg/L		07/14/21 11:57	07/15/21 13:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		30 - 120	07/14/21 11:57	07/15/21 13:20	1
DCB Decachlorobiphenyl	72		30 - 140	07/14/21 11:57	07/15/21 13:20	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

GC Semi VOA

Prep Batch: 609347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-28	ED-R1SD-EB15	Total/NA	Water	3510C	
MB 500-609347/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-609347/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-609347/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 609552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202181-28	ED-R1SD-EB15	Total/NA	Water	8082A	609347
MB 500-609347/1-A	Method Blank	Total/NA	Water	8082A	609347
LCS 500-609347/4-A	Lab Control Sample	Total/NA	Water	8082A	609347
LCSD 500-609347/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	609347

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-202181-28	ED-R1SD-EB15	84	72
LCS 500-609347/4-A	Lab Control Sample	72	116
LCSD 500-609347/5-A	Lab Control Sample Dup	81	120
MB 500-609347/1-A	Method Blank	71	111

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-609347/1-A
Matrix: Water
Analysis Batch: 609552

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609347

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1221	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1232	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1242	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1248	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1254	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1260	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	71		30 - 120	07/14/21 11:57	07/15/21 12:32			1
DCB Decachlorobiphenyl	111		30 - 140	07/14/21 11:57	07/15/21 12:32			1

Lab Sample ID: LCS 500-609347/4-A
Matrix: Water
Analysis Batch: 609552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609347

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	0.00400	0.00386		mg/L		97	56 - 120	
PCB-1260	0.00400	0.00513		mg/L		128	53 - 137	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	72		30 - 120
DCB Decachlorobiphenyl	116		30 - 140

Lab Sample ID: LCSD 500-609347/5-A
Matrix: Water
Analysis Batch: 609552

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 609347

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits		RPD	
		Result	Qualifier						RPD	Limit
PCB-1016	0.00400	0.00420		mg/L		105	56 - 120	8	20	
PCB-1260	0.00400	0.00559	*+	mg/L		140	53 - 137	9	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	81		30 - 120
DCB Decachlorobiphenyl	120		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Client Sample ID: ED-R1SD-EB15

Lab Sample ID: 500-202181-28

Date Collected: 07/10/21 15:22

Matrix: Water

Date Received: 07/12/21 12:25

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			609347	07/14/21 11:57	DAK	TAL CHI
Total/NA	Analysis	8082A		1	609552	07/15/21 13:20	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202181-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: J O'Brien		Lab PM: Kintz, Robin M		Carrier Tracking No(s): 500-202181 COC		COC No: 500-92290-41114 1		
Client Contact: Garrett Welch		Phone: 865-407-8861		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: Page 1 of 3		
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested				
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform: MS/MSD (Yes or No) 8082A - PCBs				Total Number of containers		
City: Knoxville		TAT Requested (days):								
State/Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required								
Email: gwelch@cecinc.com		WO #:								
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033						Preservation Codes A HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:		
Site:		SSOW#:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform: MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note
				Preservation Code:						
1	ED-RISD - SW031N-2	7/10	0825	C	S		X		1	Priority
2	ED-RISD - SW0323-2		0837	C	S		X		1	
3	ED-RISD - SW038S-2		0846	C	S		X		1	
4	ED-RISD - SW039N-2		0852	C	S		X		1	
5	ED-RISD - SW040S-2		0900	C	S		X		1	
6	ED-RISD - SW047N-2		0908	C	S		X		1	
7	ED-RISD - SW050S-2		0916	C	S		X		1	
8	ED-RISD - SW051N-2		0930	C	S		X		1	
9	ED-RISD - SW053N-2		0946	C	S		X		1	
10	ED-RISD - SW064S-2		1001	C	S		X		1	
11	ED-RISD - SW087N-1	↓	1034	C	S		X		1	↓
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested <input checked="" type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV Other (specify)					Special Instructions/QC Requirements					
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:			
Relinquished by: <i>Garrett Welch</i>		Date/Time: <i>7/12</i>		Company: <i>1114</i>		Received by: <i>B. N. ...</i>		Date/Time: <i>7/12/21 11/14</i>		Company: <i>ETA</i>
Relinquished by: <i>Garrett Welch</i>		Date/Time: <i>7/12/21</i>		Company: <i>1225</i>		Received by: <i>Garrett Welch</i>		Date/Time: <i>7/12/21 1225</i>		Company: <i>ETA</i>
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No:		Page 14 of 17		Cooler Temperature(s) °C and Other Remarks: <i>2.0 → 2.2</i>		7/16/2021		Ver: 01/16/2010

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <u>J O'Brien</u>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No. 500-92290-41114 1													
Client Contact: Garrett Welch		Phone: <u>865-407-8861</u>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin		Page: <u>2 of 3</u>													
Company: Civil & Environmental Consultants Inc		PWSID		Analysis Requested						Job #: <u>500-202181</u>											
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform: MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Preservation Codes		A HCL M - Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:			
Field Filtered Sample (Yes or No)																					
Perform: MS/MSD (Yes or No)																					
8092A - PCBs																					
City: Knoxville		TAT Requested (days)																			
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																			
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																			
Email: gwelch@cecinc.com		WO #:																			
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033																			
Site:		SSOW#:																			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil)		BT=Tissue, AA=Air		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Total Number of containers		Special Instructions/Note	
						Preservation Code															
<u>12 ED-RISD - SW1009N-1 SW1009N-1</u>		<u>7/10</u>		<u>1046</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>		<u>Priority</u>	
<u>13 ED-RISD - SW1091N-1</u>				<u>1053</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
<u>14 ED-RISD - SW1005S-1</u>				<u>1110</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
<u>15 ED-RISD - SW1010N-1</u>				<u>1123</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
<u>16 ED-RISD - SW1045</u>				<u>1130</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
<u>17 ED-RISD - SW105N</u>				<u>1143</u>		<u>C S</u>		<u>S</u>		<u>X</u>		<u>X</u>						<u>3</u>			
<u>18 ED-RISD - SW106S</u>				<u>1146</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
<u>19 ED-RISD - SW107N</u>				<u>1155</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
<u>20 ED-RISD - SW108S</u>				<u>1200</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
<u>21 ED-RISD - SW109N</u>				<u>1210</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
<u>22 ED-RISD - SW112S</u>		<u>7/16</u>		<u>1218</u>		<u>C S</u>		<u>S</u>				<u>X</u>						<u>1</u>			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)															
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months															
Deliverable Requested <u>I(II/III IV Other (specify))</u>						Special Instructions/QC Requirements															
Empty Kit Relinquished by:		Date		Time		Method of Shipment.															
Relinquished by: <u>Johnny O'Brien</u>		Date/Time: <u>7/12 1114</u>		Company: <u>EAT</u>		Received by: <u>P. Neal</u>		Date/Time: <u>7/12/21 1114</u>		Company: <u>EAT</u>											
Relinquished by: <u>P. Neal</u>		Date/Time: <u>7/12/21 1225</u>		Company: <u>EAT</u>		Received by: <u>[Signature]</u>		Date/Time: <u>7/12/21 1225</u>		Company: <u>[Signature]</u>											
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:											
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 15 of 17				Cooler Temperature(s) °C and Other Remarks													



Eurofins TestAmerica, Chicago

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Chain of Custody Record



Client Information		Sampler: <u>J O'Brien</u>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1																					
Client Contact: Garrett Welch		Phone: <u>865-407-8860</u>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin		Page: 3 of 3																					
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: <u>500-202/81</u>																			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Preservation Codes		A - HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:											
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Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																											
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Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033																											
Site		SSOW#:																											
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of containers		Special Instructions/Note											
						Preservation Code:																							
<u>23</u> ED-RISD-SW11N		<u>7/10</u>		<u>1223</u>		<u>C</u>		<u>S</u>								<u>1</u>													
<u>24</u> ED-RISD-SW11ZS				<u>1228</u>		<u>C</u>		<u>S</u>								<u>1</u>													
<u>25</u> ED-RISD-SW113N				<u>1232</u>		<u>C</u>		<u>S</u>		<u>X</u>		<u>X</u>				<u>3</u>													
<u>26</u> ED-RISD-SWDUP9				<u>-</u>		<u>C</u>		<u>S</u>		<u>X</u>						<u>1</u>													
<u>27</u> ED-RISD-SWDUP10				<u>-</u>		<u>C</u>		<u>S</u>		<u>X</u>						<u>1</u>													
<u>28</u> ED-RISD-EB15				<u>1512</u>		<u>G</u>		<u>W</u>		<u>X</u>						<u>2</u>													
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																			
Deliverable Requested I, II, III, IV, Other (specify)										Special Instructions/QC Requirements																			
Empty Kit Relinquished by:					Date:					Time					Method of Shipment.														
Relinquished by: <u>Jimmy Barron</u>					Date/Time: <u>7/12</u>					Company: <u>1115</u>					Received by: <u>R. Neal</u>					Date/Time: <u>7/12/21</u>					Company: <u>EA</u>				
Relinquished by: <u>R. Neal</u>					Date/Time: <u>7/12/21</u>					Company: <u>EA</u>					Received by: <u>[Signature]</u>					Date/Time: <u>7/12/21</u>					Company: <u>EA</u>				
Relinquished by:					Date/Time:					Company:					Received by:					Date/Time:					Company:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No					Cooler Temperature(s) °C and Other Remarks																			



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202181-3

Login Number: 202181

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-202223-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/14/2021 4:13:45 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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QC Sample Results	24
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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Job ID: 500-202223-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202223-1

Comments

No additional comments.

Receipt

The samples were received on 7/13/2021 12:40 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.4° C.

GC Semi VOA

Method 8082A: The following samples were reported from the primary column due to PCB-1016, PCB-1260 and DCB Decachlorobiphenyl recovering outside control limits for the continuing calibration verification (CCVIS) on the secondary column; therefore, the higher of the two results have been reported. ED-R1SD-097-1 (500-202223-4), ED-R1SD-098-1 (500-202223-5), ED-R1SD-099-1 (500-202223-6) and (CCVIS 500-609215/1)

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-094-1 (500-202223-1), ED-R1SD-095-1 (500-202223-2), ED-R1SD-096-1 (500-202223-3), ED-R1SD-097-1 (500-202223-4), ED-R1SD-098-1 (500-202223-5), ED-R1SD-099-1 (500-202223-6), ED-R1SD-101 (500-202223-8), ED-R1SD-102 (500-202223-9), ED-R1SD-103 (500-202223-10) and ED-R1SD-DUP8 (500-202223-13).

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following sample was outside control limits: ED-R1SD-104 (500-202223-11). The other surrogate was within limits and the sample is non-detect for the target analytes; therefore, re-analysis was not performed.

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 500-609194 and analytical batch 500-609215 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-094-1

Lab Sample ID: 500-202223-1

No Detections.

Client Sample ID: ED-R1SD-095-1

Lab Sample ID: 500-202223-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.49		0.39		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-096-1

Lab Sample ID: 500-202223-3

No Detections.

Client Sample ID: ED-R1SD-097-1

Lab Sample ID: 500-202223-4

No Detections.

Client Sample ID: ED-R1SD-098-1

Lab Sample ID: 500-202223-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.77		0.39		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-099-1

Lab Sample ID: 500-202223-6

No Detections.

Client Sample ID: ED-R1SD-100

Lab Sample ID: 500-202223-7

No Detections.

Client Sample ID: ED-R1SD-101

Lab Sample ID: 500-202223-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.4		0.41		mg/Kg	20	⊛	8082A	Total/NA

Client Sample ID: ED-R1SD-102

Lab Sample ID: 500-202223-9

No Detections.

Client Sample ID: ED-R1SD-103

Lab Sample ID: 500-202223-10

No Detections.

Client Sample ID: ED-R1SD-104

Lab Sample ID: 500-202223-11

No Detections.

Client Sample ID: ED-R1SD-105

Lab Sample ID: 500-202223-12

No Detections.

Client Sample ID: ED-R1SD-DUP8

Lab Sample ID: 500-202223-13

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202223-1	ED-R1SD-094-1	Solid	07/12/21 16:01	07/13/21 12:40	
500-202223-2	ED-R1SD-095-1	Solid	07/12/21 16:04	07/13/21 12:40	
500-202223-3	ED-R1SD-096-1	Solid	07/12/21 16:06	07/13/21 12:40	
500-202223-4	ED-R1SD-097-1	Solid	07/12/21 16:09	07/13/21 12:40	
500-202223-5	ED-R1SD-098-1	Solid	07/12/21 16:12	07/13/21 12:40	
500-202223-6	ED-R1SD-099-1	Solid	07/12/21 16:16	07/13/21 12:40	
500-202223-7	ED-R1SD-100	Solid	07/12/21 16:19	07/13/21 12:40	
500-202223-8	ED-R1SD-101	Solid	07/12/21 16:21	07/13/21 12:40	
500-202223-9	ED-R1SD-102	Solid	07/12/21 16:25	07/13/21 12:40	
500-202223-10	ED-R1SD-103	Solid	07/12/21 16:28	07/13/21 12:40	
500-202223-11	ED-R1SD-104	Solid	07/12/21 16:30	07/13/21 12:40	
500-202223-12	ED-R1SD-105	Solid	07/12/21 16:34	07/13/21 12:40	
500-202223-13	ED-R1SD-DUP8	Solid	07/12/21 00:00	07/13/21 12:40	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-094-1

Lab Sample ID: 500-202223-1

Date Collected: 07/12/21 16:01

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:06	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:06	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:06	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:06	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:06	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:06	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:06	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	55		49 - 129	07/13/21 16:43	07/14/21 02:06	20
DCB Decachlorobiphenyl	69		37 - 121	07/13/21 16:43	07/14/21 02:06	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-095-1

Lab Sample ID: 500-202223-2

Date Collected: 07/12/21 16:04

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 86.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:21	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:21	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:21	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:21	20
PCB-1248	0.49		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:21	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:21	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		49 - 129	07/13/21 16:43	07/14/21 02:21	20
DCB Decachlorobiphenyl	84		37 - 121	07/13/21 16:43	07/14/21 02:21	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-096-1

Lab Sample ID: 500-202223-3

Date Collected: 07/12/21 16:06

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 86.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 02:36	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 02:36	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 02:36	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 02:36	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 02:36	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 02:36	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 02:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/13/21 16:43	07/14/21 02:36	20
DCB Decachlorobiphenyl	84		37 - 121	07/13/21 16:43	07/14/21 02:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-097-1

Lab Sample ID: 500-202223-4

Date Collected: 07/12/21 16:09

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:52	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:52	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:52	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:52	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:52	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:52	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 02:52	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	59		49 - 129	07/13/21 16:43	07/14/21 02:52	20
DCB Decachlorobiphenyl	78		37 - 121	07/13/21 16:43	07/14/21 02:52	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-098-1

Lab Sample ID: 500-202223-5

Date Collected: 07/12/21 16:12

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 85.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 03:07	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 03:07	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 03:07	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 03:07	20
PCB-1248	0.77		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 03:07	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 03:07	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/13/21 16:43	07/14/21 03:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	07/13/21 16:43	07/14/21 03:07	20
DCB Decachlorobiphenyl	70		37 - 121	07/13/21 16:43	07/14/21 03:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-099-1

Lab Sample ID: 500-202223-6

Date Collected: 07/12/21 16:16

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 03:23	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 03:23	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 03:23	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 03:23	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 03:23	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 03:23	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/13/21 16:43	07/14/21 03:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	59		49 - 129	07/13/21 16:43	07/14/21 03:23	20
DCB Decachlorobiphenyl	72		37 - 121	07/13/21 16:43	07/14/21 03:23	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-100

Lab Sample ID: 500-202223-7

Date Collected: 07/12/21 16:19

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 03:38	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 03:38	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 03:38	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 03:38	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 03:38	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 03:38	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 03:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	07/13/21 16:43	07/14/21 03:38	20
DCB Decachlorobiphenyl	95		37 - 121	07/13/21 16:43	07/14/21 03:38	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-101

Lab Sample ID: 500-202223-8

Date Collected: 07/12/21 16:21

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 80.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 03:54	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 03:54	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 03:54	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 03:54	20
PCB-1248	1.4		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 03:54	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 03:54	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 03:54	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	07/13/21 16:43	07/14/21 03:54	20
DCB Decachlorobiphenyl	76		37 - 121	07/13/21 16:43	07/14/21 03:54	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-102

Lab Sample ID: 500-202223-9

Date Collected: 07/12/21 16:25

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 82.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:09	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:09	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:09	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:09	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:09	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:09	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:09	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	07/13/21 16:43	07/14/21 04:09	20
DCB Decachlorobiphenyl	75		37 - 121	07/13/21 16:43	07/14/21 04:09	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-103

Lab Sample ID: 500-202223-10

Date Collected: 07/12/21 16:28

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:24	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:24	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:24	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:24	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:24	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:24	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/13/21 16:43	07/14/21 04:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	54		49 - 129	07/13/21 16:43	07/14/21 04:24	20
DCB Decachlorobiphenyl	61		37 - 121	07/13/21 16:43	07/14/21 04:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-104

Lab Sample ID: 500-202223-11

Date Collected: 07/12/21 16:30

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 79.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 04:40	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 04:40	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 04:40	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 04:40	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 04:40	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 04:40	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/13/21 16:43	07/14/21 04:40	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	31	S1-	49 - 129	07/13/21 16:43	07/14/21 04:40	20
DCB Decachlorobiphenyl	44		37 - 121	07/13/21 16:43	07/14/21 04:40	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-105

Lab Sample ID: 500-202223-12

Date Collected: 07/12/21 16:34

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 81.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:26	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:26	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:26	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:26	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:26	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:26	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	54		49 - 129	07/13/21 16:43	07/14/21 05:26	20
DCB Decachlorobiphenyl	69		37 - 121	07/13/21 16:43	07/14/21 05:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-DUP8

Lab Sample ID: 500-202223-13

Date Collected: 07/12/21 00:00

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 81.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:41	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:41	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:41	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:41	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:41	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:41	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/13/21 16:43	07/14/21 05:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	07/13/21 16:43	07/14/21 05:41	20
DCB Decachlorobiphenyl	74		37 - 121	07/13/21 16:43	07/14/21 05:41	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

GC Semi VOA

Prep Batch: 609194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202223-1	ED-R1SD-094-1	Total/NA	Solid	3541	
500-202223-2	ED-R1SD-095-1	Total/NA	Solid	3541	
500-202223-3	ED-R1SD-096-1	Total/NA	Solid	3541	
500-202223-4	ED-R1SD-097-1	Total/NA	Solid	3541	
500-202223-5	ED-R1SD-098-1	Total/NA	Solid	3541	
500-202223-6	ED-R1SD-099-1	Total/NA	Solid	3541	
500-202223-7	ED-R1SD-100	Total/NA	Solid	3541	
500-202223-8	ED-R1SD-101	Total/NA	Solid	3541	
500-202223-9	ED-R1SD-102	Total/NA	Solid	3541	
500-202223-10	ED-R1SD-103	Total/NA	Solid	3541	
500-202223-11	ED-R1SD-104	Total/NA	Solid	3541	
500-202223-12	ED-R1SD-105	Total/NA	Solid	3541	
500-202223-13	ED-R1SD-DUP8	Total/NA	Solid	3541	
MB 500-609194/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-609194/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202223-11 MS	ED-R1SD-104	Total/NA	Solid	3541	
500-202223-11 MSD	ED-R1SD-104	Total/NA	Solid	3541	

Analysis Batch: 609215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202223-1	ED-R1SD-094-1	Total/NA	Solid	8082A	609194
500-202223-2	ED-R1SD-095-1	Total/NA	Solid	8082A	609194
500-202223-3	ED-R1SD-096-1	Total/NA	Solid	8082A	609194
500-202223-4	ED-R1SD-097-1	Total/NA	Solid	8082A	609194
500-202223-5	ED-R1SD-098-1	Total/NA	Solid	8082A	609194
500-202223-6	ED-R1SD-099-1	Total/NA	Solid	8082A	609194
500-202223-7	ED-R1SD-100	Total/NA	Solid	8082A	609194
500-202223-8	ED-R1SD-101	Total/NA	Solid	8082A	609194
500-202223-9	ED-R1SD-102	Total/NA	Solid	8082A	609194
500-202223-10	ED-R1SD-103	Total/NA	Solid	8082A	609194
500-202223-11	ED-R1SD-104	Total/NA	Solid	8082A	609194
500-202223-12	ED-R1SD-105	Total/NA	Solid	8082A	609194
500-202223-13	ED-R1SD-DUP8	Total/NA	Solid	8082A	609194
MB 500-609194/1-A	Method Blank	Total/NA	Solid	8082A	609194
LCS 500-609194/2-A	Lab Control Sample	Total/NA	Solid	8082A	609194
500-202223-11 MS	ED-R1SD-104	Total/NA	Solid	8082A	609194
500-202223-11 MSD	ED-R1SD-104	Total/NA	Solid	8082A	609194

General Chemistry

Analysis Batch: 609173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202223-1	ED-R1SD-094-1	Total/NA	Solid	Moisture	
500-202223-2	ED-R1SD-095-1	Total/NA	Solid	Moisture	
500-202223-3	ED-R1SD-096-1	Total/NA	Solid	Moisture	
500-202223-4	ED-R1SD-097-1	Total/NA	Solid	Moisture	
500-202223-5	ED-R1SD-098-1	Total/NA	Solid	Moisture	
500-202223-6	ED-R1SD-099-1	Total/NA	Solid	Moisture	
500-202223-7	ED-R1SD-100	Total/NA	Solid	Moisture	
500-202223-8	ED-R1SD-101	Total/NA	Solid	Moisture	
500-202223-9	ED-R1SD-102	Total/NA	Solid	Moisture	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

General Chemistry (Continued)

Analysis Batch: 609173 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202223-10	ED-R1SD-103	Total/NA	Solid	Moisture	
500-202223-11	ED-R1SD-104	Total/NA	Solid	Moisture	
500-202223-12	ED-R1SD-105	Total/NA	Solid	Moisture	
500-202223-13	ED-R1SD-DUP8	Total/NA	Solid	Moisture	
500-202223-1 DU	ED-R1SD-094-1	Total/NA	Solid	Moisture	

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Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-202223-1	ED-R1SD-094-1	55	69
500-202223-2	ED-R1SD-095-1	78	84
500-202223-3	ED-R1SD-096-1	69	84
500-202223-4	ED-R1SD-097-1	59	78
500-202223-5	ED-R1SD-098-1	61	70
500-202223-6	ED-R1SD-099-1	59	72
500-202223-7	ED-R1SD-100	65	95
500-202223-8	ED-R1SD-101	56	76
500-202223-9	ED-R1SD-102	65	75
500-202223-10	ED-R1SD-103	54	61
500-202223-11	ED-R1SD-104	31 S1-	44
500-202223-11 MS	ED-R1SD-104	57	55
500-202223-11 MSD	ED-R1SD-104	25 S1-	34 S1-
500-202223-12	ED-R1SD-105	54	69
500-202223-13	ED-R1SD-DUP8	56	74
LCS 500-609194/2-A	Lab Control Sample	75	87
MB 500-609194/1-A	Method Blank	76	79

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-609194/1-A
Matrix: Solid
Analysis Batch: 609215

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609194

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1221	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1232	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1242	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1248	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1254	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	
PCB-1260	<0.33		0.33		mg/Kg		07/13/21 16:43	07/13/21 23:16		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	76		49 - 129	07/13/21 16:43	07/13/21 23:16		20	
DCB Decachlorobiphenyl	79		37 - 121	07/13/21 16:43	07/13/21 23:16		20	

Lab Sample ID: LCS 500-609194/2-A
Matrix: Solid
Analysis Batch: 609215

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609194

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.21		mg/Kg		73	57 - 120	
PCB-1260	1.67	1.38		mg/Kg		83	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	75		49 - 129
DCB Decachlorobiphenyl	87		37 - 121

Lab Sample ID: 500-202223-11 MS
Matrix: Solid
Analysis Batch: 609215

Client Sample ID: ED-R1SD-104
Prep Type: Total/NA
Prep Batch: 609194

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.42		2.09	1.16	F1	mg/Kg	☼	56	57 - 120	
PCB-1260	<0.42		2.09	1.28		mg/Kg	☼	61	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	57		49 - 129
DCB Decachlorobiphenyl	55		37 - 121

Lab Sample ID: 500-202223-11 MSD
Matrix: Solid
Analysis Batch: 609215

Client Sample ID: ED-R1SD-104
Prep Type: Total/NA
Prep Batch: 609194

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.42		2.09	0.506	F1 F2	mg/Kg	☼	24	57 - 120	79	30	
PCB-1260	<0.42		2.09	0.588	F1 F2	mg/Kg	☼	28	61 - 125	74	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	25	S1-	49 - 129
DCB Decachlorobiphenyl	34	S1-	37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-094-1

Date Collected: 07/12/21 16:01

Date Received: 07/13/21 12:40

Lab Sample ID: 500-202223-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-094-1

Date Collected: 07/12/21 16:01

Date Received: 07/13/21 12:40

Lab Sample ID: 500-202223-1

Matrix: Solid

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 02:06	SS	TAL CHI

Client Sample ID: ED-R1SD-095-1

Date Collected: 07/12/21 16:04

Date Received: 07/13/21 12:40

Lab Sample ID: 500-202223-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-095-1

Date Collected: 07/12/21 16:04

Date Received: 07/13/21 12:40

Lab Sample ID: 500-202223-2

Matrix: Solid

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 02:21	SS	TAL CHI

Client Sample ID: ED-R1SD-096-1

Date Collected: 07/12/21 16:06

Date Received: 07/13/21 12:40

Lab Sample ID: 500-202223-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-096-1

Date Collected: 07/12/21 16:06

Date Received: 07/13/21 12:40

Lab Sample ID: 500-202223-3

Matrix: Solid

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 02:36	SS	TAL CHI

Client Sample ID: ED-R1SD-097-1

Date Collected: 07/12/21 16:09

Date Received: 07/13/21 12:40

Lab Sample ID: 500-202223-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-097-1

Lab Sample ID: 500-202223-4

Date Collected: 07/12/21 16:09

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 02:52	SS	TAL CHI

Client Sample ID: ED-R1SD-098-1

Lab Sample ID: 500-202223-5

Date Collected: 07/12/21 16:12

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-098-1

Lab Sample ID: 500-202223-5

Date Collected: 07/12/21 16:12

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 03:07	SS	TAL CHI

Client Sample ID: ED-R1SD-099-1

Lab Sample ID: 500-202223-6

Date Collected: 07/12/21 16:16

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-099-1

Lab Sample ID: 500-202223-6

Date Collected: 07/12/21 16:16

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 03:23	SS	TAL CHI

Client Sample ID: ED-R1SD-100

Lab Sample ID: 500-202223-7

Date Collected: 07/12/21 16:19

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-100

Lab Sample ID: 500-202223-7

Date Collected: 07/12/21 16:19

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 03:38	SS	TAL CHI

Client Sample ID: ED-R1SD-101

Lab Sample ID: 500-202223-8

Date Collected: 07/12/21 16:21

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-101

Lab Sample ID: 500-202223-8

Date Collected: 07/12/21 16:21

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 03:54	SS	TAL CHI

Client Sample ID: ED-R1SD-102

Lab Sample ID: 500-202223-9

Date Collected: 07/12/21 16:25

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-102

Lab Sample ID: 500-202223-9

Date Collected: 07/12/21 16:25

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 82.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 04:09	SS	TAL CHI

Client Sample ID: ED-R1SD-103

Lab Sample ID: 500-202223-10

Date Collected: 07/12/21 16:28

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-103

Lab Sample ID: 500-202223-10

Date Collected: 07/12/21 16:28

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 04:24	SS	TAL CHI

Client Sample ID: ED-R1SD-104

Lab Sample ID: 500-202223-11

Date Collected: 07/12/21 16:30

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-104

Lab Sample ID: 500-202223-11

Date Collected: 07/12/21 16:30

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 04:40	SS	TAL CHI

Client Sample ID: ED-R1SD-105

Lab Sample ID: 500-202223-12

Date Collected: 07/12/21 16:34

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Client Sample ID: ED-R1SD-105

Lab Sample ID: 500-202223-12

Date Collected: 07/12/21 16:34

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 05:26	SS	TAL CHI

Client Sample ID: ED-R1SD-DUP8

Lab Sample ID: 500-202223-13

Date Collected: 07/12/21 00:00

Matrix: Solid

Date Received: 07/13/21 12:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609173	07/13/21 15:14	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Client Sample ID: ED-R1SD-DUP8

Lab Sample ID: 500-202223-13

Date Collected: 07/12/21 00:00

Matrix: Solid

Date Received: 07/13/21 12:40

Percent Solids: 81.3

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			609194	07/13/21 16:43	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609215	07/14/21 05:41	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: J O'Brien		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: 865-407-8861		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin		Page 1 of	
Company: Civil & Environmental Consultants Inc				PWSID		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested		Job #: 500-202223			
City: Knoxville				TAT Requested (days)		Preservation Codes A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:			
State Zip: TN 37920				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: 865-340-4914(Tel)				PO #: Purchase Order not required					
Email: gwelch@cecinc.com				WO #					
Project Name: Arconic PCB Rush Project - Lafayette IN				Project #: 50019033					
Site				SSOW#		Total Number of containers Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs			
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)				
				Preservation Code					
12 ED-RISD-105		7/12	1634	C	S		X		1
13 ED-RISD-DUPB		7/12	-	C	S		X		1
14 ED-RISD-EB16		7/13	0835	G	W				1
Possible Hazard Identification									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I, II, III, IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date		Time		Method of Shipment			
Relinquished by: <i>Jimmy O'Brien</i>		Date/Time: 7/13 1130		Company: <i>E</i>		Received by: <i>[Signature]</i>		Date/Time: 7/13/12 1130	
Relinquished by: <i>P. Neal</i>		Date/Time: 7/13 1240		Company: <i>EVA</i>		Received by: <i>[Signature]</i>		Date/Time: 7/13/12 1240	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks				7/14/2012	



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202223-1

Login Number: 202223

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-202223-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/20/2021 1:07:22 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Job ID: 500-202223-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202223-2

Comments

No additional comments.

Receipt

The samples were received on 7/13/2021 12:40 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.4° C.

GC Semi VOA

Method 8082A: The continuing calibration verification (CCV) associated with batch 500-609552 recovered above the upper control limit for PCB-1260 and DCB Decachlorobiphenyl. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: ED-R1SD-EB16 (500-202223-14) and (CCVIS 500-609552/2).

Method 8082A: The laboratory control sample duplicate (LCSD) for preparation batch 500-609347 and analytical batch 500-609552 recovered outside control limits for the following analytes: PCB-1260. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Client Sample ID: ED-R1SD-EB16

Lab Sample ID: 500-202223-14

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202223-14	ED-R1SD-EB16	Water	07/12/21 08:35	07/13/21 12:40	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Client Sample ID: ED-R1SD-EB16

Lab Sample ID: 500-202223-14

Date Collected: 07/12/21 08:35

Matrix: Water

Date Received: 07/13/21 12:40

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00045		0.00045		mg/L		07/14/21 11:57	07/15/21 13:36	1
PCB-1221	<0.00045		0.00045		mg/L		07/14/21 11:57	07/15/21 13:36	1
PCB-1232	<0.00045		0.00045		mg/L		07/14/21 11:57	07/15/21 13:36	1
PCB-1242	<0.00045		0.00045		mg/L		07/14/21 11:57	07/15/21 13:36	1
PCB-1248	<0.00045		0.00045		mg/L		07/14/21 11:57	07/15/21 13:36	1
PCB-1254	<0.00045		0.00045		mg/L		07/14/21 11:57	07/15/21 13:36	1
PCB-1260	<0.00045	*+	0.00045		mg/L		07/14/21 11:57	07/15/21 13:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		30 - 120	07/14/21 11:57	07/15/21 13:36	1
DCB Decachlorobiphenyl	73		30 - 140	07/14/21 11:57	07/15/21 13:36	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

GC Semi VOA

Prep Batch: 609347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202223-14	ED-R1SD-EB16	Total/NA	Water	3510C	
MB 500-609347/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-609347/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-609347/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 609552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202223-14	ED-R1SD-EB16	Total/NA	Water	8082A	609347
MB 500-609347/1-A	Method Blank	Total/NA	Water	8082A	609347
LCS 500-609347/4-A	Lab Control Sample	Total/NA	Water	8082A	609347
LCSD 500-609347/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	609347

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-202223-14	ED-R1SD-EB16	68	73
LCS 500-609347/4-A	Lab Control Sample	72	116
LCSD 500-609347/5-A	Lab Control Sample Dup	81	120
MB 500-609347/1-A	Method Blank	71	111

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-609347/1-A
Matrix: Water
Analysis Batch: 609552

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609347

Analyte	MB	MB	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1221	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1232	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1242	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1248	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1254	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1
PCB-1260	<0.00040		0.00040		mg/L		07/14/21 11:57	07/15/21 12:32			1

Surrogate	MB	MB	Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	71		30 - 120	07/14/21 11:57		07/15/21 12:32		1
DCB Decachlorobiphenyl	111		30 - 140	07/14/21 11:57		07/15/21 12:32		1

Lab Sample ID: LCS 500-609347/4-A
Matrix: Water
Analysis Batch: 609552

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609347

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
PCB-1016	0.00400	0.00386		mg/L		97	56 - 120	
PCB-1260	0.00400	0.00513		mg/L		128	53 - 137	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	72		30 - 120
DCB Decachlorobiphenyl	116		30 - 140

Lab Sample ID: LCSD 500-609347/5-A
Matrix: Water
Analysis Batch: 609552

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 609347

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
PCB-1016	0.00400	0.00420		mg/L		105	56 - 120	8	20	
PCB-1260	0.00400	0.00559	*+	mg/L		140	53 - 137	9	20	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	81		30 - 120
DCB Decachlorobiphenyl	120		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Client Sample ID: ED-R1SD-EB16

Lab Sample ID: 500-202223-14

Date Collected: 07/12/21 08:35

Matrix: Water

Date Received: 07/13/21 12:40

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			609347	07/14/21 11:57	DAK	TAL CHI
Total/NA	Analysis	8082A		1	609552	07/15/21 13:36	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202223-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



eurofins

Client Information	Sampler: <u>J O'Brien</u>	Lab PM: <u>Kintz, Robin M</u>	Order Tracking No(s)	COC No: <u>500-92290-41114 1</u>
Client Contact: <u>Garrett Welch</u>	Phone: <u>805-407-8861</u>	E-Mail: <u>Robin Kintz@Eurofinset</u>	500-202223 COC	Page: <u>1 of 1</u>
Company: <u>Civil & Environmental Consultants Inc</u>	PWSID:	Date of Origin:		

Address: <u>2704 Cherokee Farm Way Suite 101</u>		Analysis Requested		Job #: <u>500-202223</u>
City: <u>Knoxville</u>	Due Date Requested			Preservation Codes A HCL M Hexane B - NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P - Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:
State Zip: <u>TN 37920</u>	TAT Requested (days)			
Phone: <u>865-340-4914(Tel)</u>	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Email: <u>gwelch@cecinc.com</u>	PO # Purchase Order not required			

Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>	Project #: <u>50019033</u>	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers
Site	SSOW#				

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note
			Preservation Code:		X	N			
1 ED-RISD-094-1	7/12	1601	C	S			X	1	
2 ED-RISD-095-1		1604	C	S			X	1	
3 ED-RISD-096-1		1606	C	S			X	1	
4 ED-RISD-097-1		1609	C	S			X	1	
5 ED-RISD-098-1		1612	C	S			X	1	
6 ED-RISD-099-1		1616	C	S			X	1	
7 ED-RISD-100		1619	C	S			X	1	
8 ED-RISD-101		1621	C	S			X	1	
9 ED-RISD-102		1625 1627 1628 1629	C	S			X	1	
10 ED-RISD-103		1628 1629	C	S			X	1	
11 ED-RISD-104		1630	C	S	X	X		3	

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Deliverable Requested I II III IV Other (specify)	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <u>[Signature]</u>	Date/Time: <u>7/13 1130</u>	Company: <u>EVA</u>	Received by: <u>[Signature]</u> Date/Time: <u>7/13/21 1130</u> Company: <u>EVA</u>
Relinquished by: <u>[Signature]</u>	Date/Time: <u>7/13/21 1240</u>	Company: <u>EVA</u>	Received by: <u>[Signature]</u> Date/Time: <u>7/13/21 1240</u> Company: <u>EVA</u>
Relinquished by:	Date/Time:	Company:	Received by: Date/Time: Company:

Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No	Page 14 of 16	Cooler Temperature(s) °C and Other Remarks.	7/20/2021
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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202223-2

Login Number: 202223

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

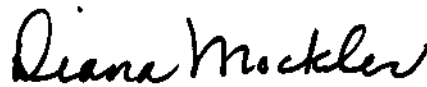
Laboratory Job ID: 500-202315-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

7/15/2021 1:03:11 PM

Diana Mockler, Project Manager I
(219)252-7570

Diana.Mockler@Eurofinset.com

Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Job ID: 500-202315-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202315-1

Comments

No additional comments.

Receipt

The samples were received on 7/14/2021 4:42 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.1° C.

GC Semi VOA

Method 8082A: The matrix spike duplicate (MSD) recoveries for preparation batch 500-609399 and analytical batch 500-609419 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following method blank (MB) was outside control limits: (MB 500-609399/1-A). The other surrogate was within limits and the MB is non-detect for the target analytes; therefore, re-analysis was not performed.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1016: ED-RISD-091-1 (500-202315-1).

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-RISD-055-2 (500-202315-3).

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-RISD-SW064S-3 (500-202315-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Client Sample ID: ED-RISD-091-1

Lab Sample ID: 500-202315-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	1.9		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-RISD-092-1

Lab Sample ID: 500-202315-2

No Detections.

Client Sample ID: ED-RISD-055-2

Lab Sample ID: 500-202315-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.50		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-RISD-SW064S-3

Lab Sample ID: 500-202315-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.41		0.38		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202315-1	ED-RISD-091-1	Solid	07/14/21 13:32	07/14/21 16:42	
500-202315-2	ED-RISD-092-1	Solid	07/14/21 13:45	07/14/21 16:42	
500-202315-3	ED-RISD-055-2	Solid	07/14/21 15:45	07/14/21 16:42	
500-202315-4	ED-RISD-SW064S-3	Solid	07/14/21 15:23	07/14/21 16:42	

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Client Sample ID: ED-RISD-091-1

Lab Sample ID: 500-202315-1

Date Collected: 07/14/21 13:32

Matrix: Solid

Date Received: 07/14/21 16:42

Percent Solids: 80.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	1.9		0.41		mg/Kg	☼	07/14/21 16:58	07/15/21 03:35	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/14/21 16:58	07/15/21 03:35	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/14/21 16:58	07/15/21 03:35	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/14/21 16:58	07/15/21 03:35	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/14/21 16:58	07/15/21 03:35	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/14/21 16:58	07/15/21 03:35	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/14/21 16:58	07/15/21 03:35	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/14/21 16:58	07/15/21 03:35	20
DCB Decachlorobiphenyl	91		37 - 121	07/14/21 16:58	07/15/21 03:35	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Client Sample ID: ED-RISD-092-1

Lab Sample ID: 500-202315-2

Date Collected: 07/14/21 13:45

Matrix: Solid

Date Received: 07/14/21 16:42

Percent Solids: 83.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 03:51	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 03:51	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 03:51	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 03:51	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 03:51	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 03:51	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 03:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	07/14/21 16:58	07/15/21 03:51	20
DCB Decachlorobiphenyl	90		37 - 121	07/14/21 16:58	07/15/21 03:51	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Client Sample ID: ED-RISD-055-2

Lab Sample ID: 500-202315-3

Date Collected: 07/14/21 15:45

Matrix: Solid

Date Received: 07/14/21 16:42

Percent Solids: 83.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 04:06	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 04:06	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 04:06	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 04:06	20
PCB-1248	0.50		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 04:06	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 04:06	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/14/21 16:58	07/15/21 04:06	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/14/21 16:58	07/15/21 04:06	20
DCB Decachlorobiphenyl	84		37 - 121	07/14/21 16:58	07/15/21 04:06	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Client Sample ID: ED-RISD-SW064S-3

Lab Sample ID: 500-202315-4

Date Collected: 07/14/21 15:23

Matrix: Solid

Date Received: 07/14/21 16:42

Percent Solids: 85.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/14/21 16:58	07/15/21 04:22	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/14/21 16:58	07/15/21 04:22	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/14/21 16:58	07/15/21 04:22	20
PCB-1242	0.41		0.38		mg/Kg	☼	07/14/21 16:58	07/15/21 04:22	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/14/21 16:58	07/15/21 04:22	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/14/21 16:58	07/15/21 04:22	20
PCB-1260	<0.38	F1	0.38		mg/Kg	☼	07/14/21 16:58	07/15/21 04:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/14/21 16:58	07/15/21 04:22	20
DCB Decachlorobiphenyl	85		37 - 121	07/14/21 16:58	07/15/21 04:22	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

GC Semi VOA

Prep Batch: 609399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202315-1	ED-RISD-091-1	Total/NA	Solid	3541	
500-202315-2	ED-RISD-092-1	Total/NA	Solid	3541	
500-202315-3	ED-RISD-055-2	Total/NA	Solid	3541	
500-202315-4	ED-RISD-SW064S-3	Total/NA	Solid	3541	
MB 500-609399/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-609399/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202315-4 MS	ED-RISD-SW064S-3	Total/NA	Solid	3541	
500-202315-4 MSD	ED-RISD-SW064S-3	Total/NA	Solid	3541	

Analysis Batch: 609419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202315-1	ED-RISD-091-1	Total/NA	Solid	8082A	609399
500-202315-2	ED-RISD-092-1	Total/NA	Solid	8082A	609399
500-202315-3	ED-RISD-055-2	Total/NA	Solid	8082A	609399
500-202315-4	ED-RISD-SW064S-3	Total/NA	Solid	8082A	609399
MB 500-609399/1-A	Method Blank	Total/NA	Solid	8082A	609399
LCS 500-609399/2-A	Lab Control Sample	Total/NA	Solid	8082A	609399
500-202315-4 MS	ED-RISD-SW064S-3	Total/NA	Solid	8082A	609399
500-202315-4 MSD	ED-RISD-SW064S-3	Total/NA	Solid	8082A	609399

General Chemistry

Analysis Batch: 609404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202315-1	ED-RISD-091-1	Total/NA	Solid	Moisture	
500-202315-2	ED-RISD-092-1	Total/NA	Solid	Moisture	
500-202315-3	ED-RISD-055-2	Total/NA	Solid	Moisture	
500-202315-4	ED-RISD-SW064S-3	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (49-129)	DCBP2 (37-121)
500-202315-1	ED-RISD-091-1	72	91
500-202315-2	ED-RISD-092-1	81	90
500-202315-3	ED-RISD-055-2	66	84

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (49-129)	DCBP1 (37-121)
500-202315-4	ED-RISD-SW064S-3	67	85
500-202315-4 MS	ED-RISD-SW064S-3	59	66
500-202315-4 MSD	ED-RISD-SW064S-3	52	58
LCS 500-609399/2-A	Lab Control Sample	77	94
MB 500-609399/1-A	Method Blank	89	114

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-609399/1-A
Matrix: Solid
Analysis Batch: 609419

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609399

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/14/21 16:58	07/15/21 03:04		20	
PCB-1221	<0.33		0.33		mg/Kg		07/14/21 16:58	07/15/21 03:04		20	
PCB-1232	<0.33		0.33		mg/Kg		07/14/21 16:58	07/15/21 03:04		20	
PCB-1242	<0.33		0.33		mg/Kg		07/14/21 16:58	07/15/21 03:04		20	
PCB-1248	<0.33		0.33		mg/Kg		07/14/21 16:58	07/15/21 03:04		20	
PCB-1254	<0.33		0.33		mg/Kg		07/14/21 16:58	07/15/21 03:04		20	
PCB-1260	<0.33		0.33		mg/Kg		07/14/21 16:58	07/15/21 03:04		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	89		49 - 129	07/14/21 16:58	07/15/21 03:04		20	
DCB Decachlorobiphenyl	114		37 - 121	07/14/21 16:58	07/15/21 03:04		20	

Lab Sample ID: LCS 500-609399/2-A
Matrix: Solid
Analysis Batch: 609419

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609399

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.37		mg/Kg		82	57 - 120	
PCB-1260	1.67	1.46		mg/Kg		87	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	77		49 - 129
DCB Decachlorobiphenyl	94		37 - 121

Lab Sample ID: 500-202315-4 MS
Matrix: Solid
Analysis Batch: 609419

Client Sample ID: ED-RISD-SW064S-3
Prep Type: Total/NA
Prep Batch: 609399

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<0.38		1.92	1.46		mg/Kg	☼	76	57 - 120	
PCB-1260	<0.38	F1	1.92	1.24		mg/Kg	☼	64	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	59		49 - 129
DCB Decachlorobiphenyl	66		37 - 121

Lab Sample ID: 500-202315-4 MSD
Matrix: Solid
Analysis Batch: 609419

Client Sample ID: ED-RISD-SW064S-3
Prep Type: Total/NA
Prep Batch: 609399

Analyte	Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<0.38		1.93	1.54		mg/Kg	☼	80	57 - 120	6	30	
PCB-1260	<0.38	F1	1.93	1.16	F1	mg/Kg	☼	60	61 - 125	6	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	52		49 - 129
DCB Decachlorobiphenyl	58		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Client Sample ID: ED-RISD-091-1

Date Collected: 07/14/21 13:32

Date Received: 07/14/21 16:42

Lab Sample ID: 500-202315-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609404	07/14/21 17:17	LWN	TAL CHI

Client Sample ID: ED-RISD-091-1

Date Collected: 07/14/21 13:32

Date Received: 07/14/21 16:42

Lab Sample ID: 500-202315-1

Matrix: Solid

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609399	07/14/21 16:58	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609419	07/15/21 03:35	SS	TAL CHI

Client Sample ID: ED-RISD-092-1

Date Collected: 07/14/21 13:45

Date Received: 07/14/21 16:42

Lab Sample ID: 500-202315-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609404	07/14/21 17:17	LWN	TAL CHI

Client Sample ID: ED-RISD-092-1

Date Collected: 07/14/21 13:45

Date Received: 07/14/21 16:42

Lab Sample ID: 500-202315-2

Matrix: Solid

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609399	07/14/21 16:58	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609419	07/15/21 03:51	SS	TAL CHI

Client Sample ID: ED-RISD-055-2

Date Collected: 07/14/21 15:45

Date Received: 07/14/21 16:42

Lab Sample ID: 500-202315-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609404	07/14/21 17:17	LWN	TAL CHI

Client Sample ID: ED-RISD-055-2

Date Collected: 07/14/21 15:45

Date Received: 07/14/21 16:42

Lab Sample ID: 500-202315-3

Matrix: Solid

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609399	07/14/21 16:58	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609419	07/15/21 04:06	SS	TAL CHI

Client Sample ID: ED-RISD-SW064S-3

Date Collected: 07/14/21 15:23

Date Received: 07/14/21 16:42

Lab Sample ID: 500-202315-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609404	07/14/21 17:17	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Client Sample ID: ED-RISD-SW064S-3

Lab Sample ID: 500-202315-4

Date Collected: 07/14/21 15:23

Matrix: Solid

Date Received: 07/14/21 16:42

Percent Solids: 85.1

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			609399	07/14/21 16:58	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609419	07/15/21 04:22	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202315-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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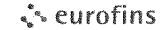
14


15

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <i>J O'Brien</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1			
Client Contact: Garrett Welch		Phone: <i>865-407-0861</i>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin		Page: Page 1 of			
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested					
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		 500-202315 COC		Job #: <i>500-202315</i>					
City: Knoxville		TAT Requested (days)									
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required									
Email: gwelch@cecinc.com		WO #:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of containers	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033									
Site:		SSOW#:		Preservation Codes		Other:		A - HCL M Hexane B - NaOH N - None C - Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify)			
Sample Identification		Sample Date								Sample Time	
						Preservation Code.		<input checked="" type="checkbox"/> X		<input checked="" type="checkbox"/> N	
1 ED-RISD-091-1		7/14		1332		C S					
2 ED-RISD-092-1		7/14		1345		C S					
3 ED-RISD-055-2		7/14		1545		C S					
4 ED-RISD-SNOW4S-3		7/14		1523		C S					
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV, Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by			Date (Eastern Time)			Time			Method of Shipment (Eastern Time)		
Relinquished by <i>Jimmy O'Brien</i>			Date/Time <i>7/14/21 1500</i>			Company <i>ETA SH</i>			Received by <i>[Signature]</i>		
Relinquished by <i>[Signature]</i>			Date/Time <i>7/14/21 1642</i>			Company <i>ETA</i>			Received by <i>Paula Buckley</i>		
Relinquished by			Date/Time (Central Time)			Company			Received by		
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 18 of 19		Cooler Temperature(s) °C and Other Remarks <i>4.5 -> 4.1</i>		Date/Time <i>7/14/21</i>		Signature <i>[Signature]</i>	



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202315-1

Login Number: 202315

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-202407-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

7/16/2021 2:36:56 PM

Diana Mockler, Project Manager I
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Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Job ID: 500-202407-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202407-1

Comments

No additional comments.

Receipt

The samples were received on 7/15/2021 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

GC Semi VOA

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-RISD-SW104S-1 (500-202407-5) and ED-RISD-110 (500-202407-9).

Method 8082A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 500-609592 and analytical batch 500-609622 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-101-1

Lab Sample ID: 500-202407-2

No Detections.

Client Sample ID: ED-RISD-SW100S-2

Lab Sample ID: 500-202407-3

No Detections.

Client Sample ID: ED-RISD-106

Lab Sample ID: 500-202407-4

No Detections.

Client Sample ID: ED-RISD-SW104S-1

Lab Sample ID: 500-202407-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.2		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-RISD-107

Lab Sample ID: 500-202407-6

No Detections.

Client Sample ID: ED-RISD-108

Lab Sample ID: 500-202407-7

No Detections.

Client Sample ID: ED-RISD-109

Lab Sample ID: 500-202407-8

No Detections.

Client Sample ID: ED-RISD-110

Lab Sample ID: 500-202407-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.3		0.41		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-RISD-111

Lab Sample ID: 500-202407-10

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202407-2	ED-RISD-101-1	Solid	07/15/21 10:34	07/15/21 16:20	
500-202407-3	ED-RISD-SW100S-2	Solid	07/15/21 11:08	07/15/21 16:20	
500-202407-4	ED-RISD-106	Solid	07/15/21 11:04	07/15/21 16:20	
500-202407-5	ED-RISD-SW104S-1	Solid	07/15/21 14:00	07/15/21 16:20	
500-202407-6	ED-RISD-107	Solid	07/15/21 13:30	07/15/21 16:20	
500-202407-7	ED-RISD-108	Solid	07/15/21 14:10	07/15/21 16:20	
500-202407-8	ED-RISD-109	Solid	07/15/21 14:12	07/15/21 16:20	
500-202407-9	ED-RISD-110	Solid	07/15/21 14:20	07/15/21 16:20	
500-202407-10	ED-RISD-111	Solid	07/15/21 14:25	07/15/21 16:20	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-101-1

Lab Sample ID: 500-202407-2

Date Collected: 07/15/21 10:34

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 85.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/15/21 17:12	07/16/21 00:20	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/15/21 17:12	07/16/21 00:20	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/15/21 17:12	07/16/21 00:20	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/15/21 17:12	07/16/21 00:20	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/15/21 17:12	07/16/21 00:20	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/15/21 17:12	07/16/21 00:20	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/15/21 17:12	07/16/21 00:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		49 - 129	07/15/21 17:12	07/16/21 00:20	20
DCB Decachlorobiphenyl	110		37 - 121	07/15/21 17:12	07/16/21 00:20	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-SW100S-2

Lab Sample ID: 500-202407-3

Date Collected: 07/15/21 11:08

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 79.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:36	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:36	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:36	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:36	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:36	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:36	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/15/21 17:12	07/16/21 00:36	20
DCB Decachlorobiphenyl	83		37 - 121	07/15/21 17:12	07/16/21 00:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-106

Lab Sample ID: 500-202407-4

Date Collected: 07/15/21 11:04

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 78.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:51	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:51	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:51	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:51	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:51	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:51	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 00:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/15/21 17:12	07/16/21 00:51	20
DCB Decachlorobiphenyl	74		37 - 121	07/15/21 17:12	07/16/21 00:51	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-SW104S-1

Lab Sample ID: 500-202407-5

Date Collected: 07/15/21 14:00

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 84.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40	F1	0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:07	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:07	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:07	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:07	20
PCB-1248	1.2		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:07	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:07	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	07/15/21 17:12	07/16/21 01:07	20
DCB Decachlorobiphenyl	81		37 - 121	07/15/21 17:12	07/16/21 01:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-107

Lab Sample ID: 500-202407-6

Date Collected: 07/15/21 13:30

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 82.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:53	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:53	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:53	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:53	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:53	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:53	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 01:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	07/15/21 17:12	07/16/21 01:53	20
DCB Decachlorobiphenyl	100		37 - 121	07/15/21 17:12	07/16/21 01:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-108

Lab Sample ID: 500-202407-7

Date Collected: 07/15/21 14:10

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 82.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:08	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:08	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:08	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:08	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:08	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:08	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	07/15/21 17:12	07/16/21 02:08	20
DCB Decachlorobiphenyl	90		37 - 121	07/15/21 17:12	07/16/21 02:08	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-109

Lab Sample ID: 500-202407-8

Date Collected: 07/15/21 14:12

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 79.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 02:24	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 02:24	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 02:24	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 02:24	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 02:24	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 02:24	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/15/21 17:12	07/16/21 02:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/15/21 17:12	07/16/21 02:24	20
DCB Decachlorobiphenyl	83		37 - 121	07/15/21 17:12	07/16/21 02:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-110

Lab Sample ID: 500-202407-9

Date Collected: 07/15/21 14:20

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 81.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/15/21 17:12	07/16/21 02:39	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/15/21 17:12	07/16/21 02:39	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/15/21 17:12	07/16/21 02:39	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/15/21 17:12	07/16/21 02:39	20
PCB-1248	2.3		0.41		mg/Kg	☼	07/15/21 17:12	07/16/21 02:39	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/15/21 17:12	07/16/21 02:39	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/15/21 17:12	07/16/21 02:39	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	60		49 - 129				07/15/21 17:12	07/16/21 02:39	20
<i>DCB Decachlorobiphenyl</i>	79		37 - 121				07/15/21 17:12	07/16/21 02:39	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-111

Lab Sample ID: 500-202407-10

Date Collected: 07/15/21 14:25

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 82.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:54	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:54	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:54	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:54	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:54	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:54	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/15/21 17:12	07/16/21 02:54	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	07/15/21 17:12	07/16/21 02:54	20
DCB Decachlorobiphenyl	88		37 - 121	07/15/21 17:12	07/16/21 02:54	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

GC Semi VOA

Prep Batch: 609592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202407-2	ED-RISD-101-1	Total/NA	Solid	3541	
500-202407-3	ED-RISD-SW100S-2	Total/NA	Solid	3541	
500-202407-4	ED-RISD-106	Total/NA	Solid	3541	
500-202407-5	ED-RISD-SW104S-1	Total/NA	Solid	3541	
500-202407-6	ED-RISD-107	Total/NA	Solid	3541	
500-202407-7	ED-RISD-108	Total/NA	Solid	3541	
500-202407-8	ED-RISD-109	Total/NA	Solid	3541	
500-202407-9	ED-RISD-110	Total/NA	Solid	3541	
500-202407-10	ED-RISD-111	Total/NA	Solid	3541	
MB 500-609592/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-609592/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202407-5 MS	ED-RISD-SW104S-1	Total/NA	Solid	3541	
500-202407-5 MSD	ED-RISD-SW104S-1	Total/NA	Solid	3541	

Analysis Batch: 609622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202407-2	ED-RISD-101-1	Total/NA	Solid	8082A	609592
500-202407-3	ED-RISD-SW100S-2	Total/NA	Solid	8082A	609592
500-202407-4	ED-RISD-106	Total/NA	Solid	8082A	609592
500-202407-5	ED-RISD-SW104S-1	Total/NA	Solid	8082A	609592
500-202407-6	ED-RISD-107	Total/NA	Solid	8082A	609592
500-202407-7	ED-RISD-108	Total/NA	Solid	8082A	609592
500-202407-8	ED-RISD-109	Total/NA	Solid	8082A	609592
500-202407-9	ED-RISD-110	Total/NA	Solid	8082A	609592
500-202407-10	ED-RISD-111	Total/NA	Solid	8082A	609592
MB 500-609592/1-A	Method Blank	Total/NA	Solid	8082A	609592
LCS 500-609592/2-A	Lab Control Sample	Total/NA	Solid	8082A	609592
500-202407-5 MS	ED-RISD-SW104S-1	Total/NA	Solid	8082A	609592
500-202407-5 MSD	ED-RISD-SW104S-1	Total/NA	Solid	8082A	609592

General Chemistry

Analysis Batch: 609636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202407-2	ED-RISD-101-1	Total/NA	Solid	Moisture	
500-202407-3	ED-RISD-SW100S-2	Total/NA	Solid	Moisture	
500-202407-4	ED-RISD-106	Total/NA	Solid	Moisture	
500-202407-5	ED-RISD-SW104S-1	Total/NA	Solid	Moisture	
500-202407-6	ED-RISD-107	Total/NA	Solid	Moisture	
500-202407-7	ED-RISD-108	Total/NA	Solid	Moisture	
500-202407-8	ED-RISD-109	Total/NA	Solid	Moisture	
500-202407-9	ED-RISD-110	Total/NA	Solid	Moisture	
500-202407-10	ED-RISD-111	Total/NA	Solid	Moisture	
500-202407-2 DU	ED-RISD-101-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (49-129)	DCBP1 (37-121)
500-202407-2	ED-RISD-101-1	95	110
500-202407-3	ED-RISD-SW100S-2	66	83
500-202407-4	ED-RISD-106	69	74
500-202407-5	ED-RISD-SW104S-1	67	81
500-202407-5 MS	ED-RISD-SW104S-1	82	105
500-202407-5 MSD	ED-RISD-SW104S-1	100	119
500-202407-6	ED-RISD-107	80	100
500-202407-7	ED-RISD-108	74	90
500-202407-8	ED-RISD-109	69	83
500-202407-9	ED-RISD-110	60	79
500-202407-10	ED-RISD-111	69	88
LCS 500-609592/2-A	Lab Control Sample	77	81
MB 500-609592/1-A	Method Blank	75	81

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-609592/1-A
Matrix: Solid
Analysis Batch: 609622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609592

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/15/21 17:12	07/15/21 23:49		20	
PCB-1221	<0.33		0.33		mg/Kg		07/15/21 17:12	07/15/21 23:49		20	
PCB-1232	<0.33		0.33		mg/Kg		07/15/21 17:12	07/15/21 23:49		20	
PCB-1242	<0.33		0.33		mg/Kg		07/15/21 17:12	07/15/21 23:49		20	
PCB-1248	<0.33		0.33		mg/Kg		07/15/21 17:12	07/15/21 23:49		20	
PCB-1254	<0.33		0.33		mg/Kg		07/15/21 17:12	07/15/21 23:49		20	
PCB-1260	<0.33		0.33		mg/Kg		07/15/21 17:12	07/15/21 23:49		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	75		49 - 129	07/15/21 17:12	07/15/21 23:49		20	
DCB Decachlorobiphenyl	81		37 - 121	07/15/21 17:12	07/15/21 23:49		20	

Lab Sample ID: LCS 500-609592/2-A
Matrix: Solid
Analysis Batch: 609622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609592

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.33		mg/Kg		80	57 - 120	
PCB-1260	1.67	1.38		mg/Kg		83	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	77		49 - 129
DCB Decachlorobiphenyl	81		37 - 121

Lab Sample ID: 500-202407-5 MS
Matrix: Solid
Analysis Batch: 609622

Client Sample ID: ED-RISD-SW104S-1
Prep Type: Total/NA
Prep Batch: 609592

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<0.40	F1	1.97	2.55	F1	mg/Kg	☼	129	57 - 120	
PCB-1260	<0.40		1.97	2.08		mg/Kg	☼	105	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	82		49 - 129
DCB Decachlorobiphenyl	105		37 - 121

Lab Sample ID: 500-202407-5 MSD
Matrix: Solid
Analysis Batch: 609622

Client Sample ID: ED-RISD-SW104S-1
Prep Type: Total/NA
Prep Batch: 609592

Analyte	Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<0.40	F1	1.98	3.07	F1	mg/Kg	☼	155	57 - 120	19	30	
PCB-1260	<0.40		1.98	2.42		mg/Kg	☼	123	61 - 125	15	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	100		49 - 129
DCB Decachlorobiphenyl	119		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-101-1

Date Collected: 07/15/21 10:34

Date Received: 07/15/21 16:20

Lab Sample ID: 500-202407-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Client Sample ID: ED-RISD-101-1

Date Collected: 07/15/21 10:34

Date Received: 07/15/21 16:20

Lab Sample ID: 500-202407-2

Matrix: Solid

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 00:20	SS	TAL CHI

Client Sample ID: ED-RISD-SW100S-2

Date Collected: 07/15/21 11:08

Date Received: 07/15/21 16:20

Lab Sample ID: 500-202407-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Client Sample ID: ED-RISD-SW100S-2

Date Collected: 07/15/21 11:08

Date Received: 07/15/21 16:20

Lab Sample ID: 500-202407-3

Matrix: Solid

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 00:36	SS	TAL CHI

Client Sample ID: ED-RISD-106

Date Collected: 07/15/21 11:04

Date Received: 07/15/21 16:20

Lab Sample ID: 500-202407-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Client Sample ID: ED-RISD-106

Date Collected: 07/15/21 11:04

Date Received: 07/15/21 16:20

Lab Sample ID: 500-202407-4

Matrix: Solid

Percent Solids: 78.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 00:51	SS	TAL CHI

Client Sample ID: ED-RISD-SW104S-1

Date Collected: 07/15/21 14:00

Date Received: 07/15/21 16:20

Lab Sample ID: 500-202407-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-SW104S-1

Lab Sample ID: 500-202407-5

Date Collected: 07/15/21 14:00

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 01:07	SS	TAL CHI

Client Sample ID: ED-RISD-107

Lab Sample ID: 500-202407-6

Date Collected: 07/15/21 13:30

Matrix: Solid

Date Received: 07/15/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Client Sample ID: ED-RISD-107

Lab Sample ID: 500-202407-6

Date Collected: 07/15/21 13:30

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 01:53	SS	TAL CHI

Client Sample ID: ED-RISD-108

Lab Sample ID: 500-202407-7

Date Collected: 07/15/21 14:10

Matrix: Solid

Date Received: 07/15/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Client Sample ID: ED-RISD-108

Lab Sample ID: 500-202407-7

Date Collected: 07/15/21 14:10

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 02:08	SS	TAL CHI

Client Sample ID: ED-RISD-109

Lab Sample ID: 500-202407-8

Date Collected: 07/15/21 14:12

Matrix: Solid

Date Received: 07/15/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Client Sample ID: ED-RISD-109

Lab Sample ID: 500-202407-8

Date Collected: 07/15/21 14:12

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 02:24	SS	TAL CHI

Client Sample ID: ED-RISD-110

Lab Sample ID: 500-202407-9

Date Collected: 07/15/21 14:20

Matrix: Solid

Date Received: 07/15/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Client Sample ID: ED-RISD-110

Lab Sample ID: 500-202407-9

Date Collected: 07/15/21 14:20

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 02:39	SS	TAL CHI

Client Sample ID: ED-RISD-111

Lab Sample ID: 500-202407-10

Date Collected: 07/15/21 14:25

Matrix: Solid

Date Received: 07/15/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609636	07/16/21 06:21	LWN	TAL CHI

Client Sample ID: ED-RISD-111

Lab Sample ID: 500-202407-10

Date Collected: 07/15/21 14:25

Matrix: Solid

Date Received: 07/15/21 16:20

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609592	07/15/21 17:12	ACK	TAL CHI
Total/NA	Analysis	8082A		20	609622	07/16/21 02:54	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202407-1

Login Number: 202407

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

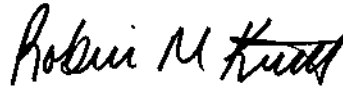
Laboratory Job ID: 500-202407-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/21/2021 3:41:16 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Job ID: 500-202407-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202407-2

Comments

No additional comments.

Receipt

The samples were received on 7/15/2021 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

GC Semi VOA

Method 8082A: The continuing calibration verification (CCV) associated with batch 500-610184 recovered above the upper control limit for PCB-1260 and DCB Decachlorobiphenyl. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: ED-RISD-EB16 (500-202407-1) and (CCVIS 500-610184/2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Client Sample ID: ED-RISD-EB16

Lab Sample ID: 500-202407-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-202407-1	ED-RISD-EB16	Water	07/15/21 07:24	07/15/21 16:20

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Client Sample ID: ED-RISD-EB16

Lab Sample ID: 500-202407-1

Date Collected: 07/15/21 07:24

Matrix: Water

Date Received: 07/15/21 16:20

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00043		0.00043		mg/L		07/19/21 09:39	07/20/21 12:10	1
PCB-1221	<0.00043		0.00043		mg/L		07/19/21 09:39	07/20/21 12:10	1
PCB-1232	<0.00043		0.00043		mg/L		07/19/21 09:39	07/20/21 12:10	1
PCB-1242	<0.00043		0.00043		mg/L		07/19/21 09:39	07/20/21 12:10	1
PCB-1248	<0.00043		0.00043		mg/L		07/19/21 09:39	07/20/21 12:10	1
PCB-1254	<0.00043		0.00043		mg/L		07/19/21 09:39	07/20/21 12:10	1
PCB-1260	<0.00043		0.00043		mg/L		07/19/21 09:39	07/20/21 12:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	83		30 - 120	07/19/21 09:39	07/20/21 12:10	1
<i>DCB Decachlorobiphenyl</i>	96		30 - 140	07/19/21 09:39	07/20/21 12:10	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

GC Semi VOA

Prep Batch: 609970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202407-1	ED-RISD-EB16	Total/NA	Water	3510C	
MB 500-609970/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-609970/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 610184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202407-1	ED-RISD-EB16	Total/NA	Water	8082A	609970
MB 500-609970/1-A	Method Blank	Total/NA	Water	8082A	609970
LCS 500-609970/2-A	Lab Control Sample	Total/NA	Water	8082A	609970

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- 2
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- 13
- 14
- 15

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-202407-1	ED-RISD-EB16	83	96
LCS 500-609970/2-A	Lab Control Sample	77	80
MB 500-609970/1-A	Method Blank	71	87

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-609970/1-A
Matrix: Water
Analysis Batch: 610184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609970

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		07/19/21 09:39	07/20/21 11:37	1
PCB-1221	<0.00040		0.00040		mg/L		07/19/21 09:39	07/20/21 11:37	1
PCB-1232	<0.00040		0.00040		mg/L		07/19/21 09:39	07/20/21 11:37	1
PCB-1242	<0.00040		0.00040		mg/L		07/19/21 09:39	07/20/21 11:37	1
PCB-1248	<0.00040		0.00040		mg/L		07/19/21 09:39	07/20/21 11:37	1
PCB-1254	<0.00040		0.00040		mg/L		07/19/21 09:39	07/20/21 11:37	1
PCB-1260	<0.00040		0.00040		mg/L		07/19/21 09:39	07/20/21 11:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	71		30 - 120	07/19/21 09:39	07/20/21 11:37	1
<i>DCB Decachlorobiphenyl</i>	87		30 - 140	07/19/21 09:39	07/20/21 11:37	1

Lab Sample ID: LCS 500-609970/2-A
Matrix: Water
Analysis Batch: 610184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609970

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00402		mg/L		100	56 - 120
PCB-1260	0.00400	0.00483		mg/L		121	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>Tetrachloro-m-xylene</i>	77		30 - 120
<i>DCB Decachlorobiphenyl</i>	80		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Client Sample ID: ED-RISD-EB16

Lab Sample ID: 500-202407-1

Date Collected: 07/15/21 07:24

Matrix: Water

Date Received: 07/15/21 16:20

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			609970	07/19/21 09:39	DAK	TAL CHI
Total/NA	Analysis	8082A		1	610184	07/20/21 12:10	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202407-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202407-2

Login Number: 202407

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-202490-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/19/2021 2:46:18 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Job ID: 500-202490-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202490-1

Comments

No additional comments.

Receipt

The samples were received on 7/16/2021 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.5° C.

GC Semi VOA

Method 8082A: The following samples were reported from the primary column due to PCB-1260 and DCB Decachlorobiphenyl recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SD-112 (500-202490-2), ED-R1SD-113 (500-202490-3), ED-R1SD-116 (500-202490-5) and ED-R1SD-DUP9 (500-202490-6).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-SW110S-1

Lab Sample ID: 500-202490-1

No Detections.

Client Sample ID: ED-R1SD-112

Lab Sample ID: 500-202490-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.69		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-113

Lab Sample ID: 500-202490-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.46		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-115

Lab Sample ID: 500-202490-4

No Detections.

Client Sample ID: ED-R1SD-116

Lab Sample ID: 500-202490-5

No Detections.

Client Sample ID: ED-R1SD-DUP9

Lab Sample ID: 500-202490-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.70		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-117

Lab Sample ID: 500-202490-7

No Detections.

Client Sample ID: ED-R1SD-118

Lab Sample ID: 500-202490-8

No Detections.

Client Sample ID: ED-R1SD-119

Lab Sample ID: 500-202490-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202490-1	ED-R1SD-SW110S-1	Solid	07/15/21 16:31	07/16/21 16:30	
500-202490-2	ED-R1SD-112	Solid	07/15/21 15:06	07/16/21 16:30	
500-202490-3	ED-R1SD-113	Solid	07/15/21 15:20	07/16/21 16:30	
500-202490-4	ED-R1SD-115	Solid	07/15/21 16:00	07/16/21 16:30	
500-202490-5	ED-R1SD-116	Solid	07/15/21 16:06	07/16/21 16:30	
500-202490-6	ED-R1SD-DUP9	Solid	07/15/21 00:00	07/16/21 16:30	
500-202490-7	ED-R1SD-117	Solid	07/15/21 16:10	07/16/21 16:30	
500-202490-8	ED-R1SD-118	Solid	07/15/21 16:18	07/16/21 16:30	
500-202490-9	ED-R1SD-119	Solid	07/15/21 16:25	07/16/21 16:30	



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-SW110S-1

Lab Sample ID: 500-202490-1

Date Collected: 07/15/21 16:31

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 85.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 22:45	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 22:45	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 22:45	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 22:45	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 22:45	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 22:45	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 22:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	98		49 - 129	07/16/21 16:45	07/16/21 22:45	20
DCB Decachlorobiphenyl	91		37 - 121	07/16/21 16:45	07/16/21 22:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-112

Lab Sample ID: 500-202490-2

Date Collected: 07/15/21 15:06

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 82.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 23:00	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 23:00	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 23:00	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 23:00	20
PCB-1248	0.69		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 23:00	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 23:00	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/16/21 23:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	07/16/21 16:45	07/16/21 23:00	20
DCB Decachlorobiphenyl	78		37 - 121	07/16/21 16:45	07/16/21 23:00	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-113

Lab Sample ID: 500-202490-3

Date Collected: 07/15/21 15:20

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 80.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/16/21 23:15	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/16/21 23:15	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/16/21 23:15	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/16/21 23:15	20
PCB-1248	0.46		0.40		mg/Kg	☼	07/16/21 16:45	07/16/21 23:15	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/16/21 23:15	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/16/21 23:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	07/16/21 16:45	07/16/21 23:15	20
DCB Decachlorobiphenyl	83		37 - 121	07/16/21 16:45	07/16/21 23:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-115

Lab Sample ID: 500-202490-4

Date Collected: 07/15/21 16:00

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 79.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/16/21 23:31	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/16/21 23:31	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/16/21 23:31	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/16/21 23:31	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/16/21 23:31	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/16/21 23:31	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/16/21 23:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/16/21 16:45	07/16/21 23:31	20
DCB Decachlorobiphenyl	65		37 - 121	07/16/21 16:45	07/16/21 23:31	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-116

Lab Sample ID: 500-202490-5

Date Collected: 07/15/21 16:06

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 84.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/16/21 16:45	07/16/21 23:46	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/16/21 16:45	07/16/21 23:46	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/16/21 16:45	07/16/21 23:46	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/16/21 16:45	07/16/21 23:46	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/16/21 16:45	07/16/21 23:46	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/16/21 16:45	07/16/21 23:46	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/16/21 16:45	07/16/21 23:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	07/16/21 16:45	07/16/21 23:46	20
DCB Decachlorobiphenyl	66		37 - 121	07/16/21 16:45	07/16/21 23:46	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-DUP9

Lab Sample ID: 500-202490-6

Date Collected: 07/15/21 00:00

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 80.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 00:02	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 00:02	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 00:02	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 00:02	20
PCB-1248	0.70		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 00:02	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 00:02	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 00:02	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	07/16/21 16:45	07/17/21 00:02	20
DCB Decachlorobiphenyl	88		37 - 121	07/16/21 16:45	07/17/21 00:02	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-117

Lab Sample ID: 500-202490-7

Date Collected: 07/15/21 16:10

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 80.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/17/21 00:17	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/17/21 00:17	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/17/21 00:17	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/17/21 00:17	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/17/21 00:17	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/17/21 00:17	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/16/21 16:45	07/17/21 00:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	07/16/21 16:45	07/17/21 00:17	20
DCB Decachlorobiphenyl	71		37 - 121	07/16/21 16:45	07/17/21 00:17	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-118

Lab Sample ID: 500-202490-8

Date Collected: 07/15/21 16:18

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 79.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 01:03	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 01:03	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 01:03	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 01:03	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 01:03	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 01:03	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/16/21 16:45	07/17/21 01:03	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	07/16/21 16:45	07/17/21 01:03	20
DCB Decachlorobiphenyl	79		37 - 121	07/16/21 16:45	07/17/21 01:03	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-119

Lab Sample ID: 500-202490-9

Date Collected: 07/15/21 16:25

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 81.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/17/21 01:19	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/17/21 01:19	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/17/21 01:19	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/17/21 01:19	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/17/21 01:19	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/17/21 01:19	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/16/21 16:45	07/17/21 01:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	07/16/21 16:45	07/17/21 01:19	20
DCB Decachlorobiphenyl	87		37 - 121	07/16/21 16:45	07/17/21 01:19	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

GC Semi VOA

Prep Batch: 609804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202490-1	ED-R1SD-SW110S-1	Total/NA	Solid	3541	
500-202490-2	ED-R1SD-112	Total/NA	Solid	3541	
500-202490-3	ED-R1SD-113	Total/NA	Solid	3541	
500-202490-4	ED-R1SD-115	Total/NA	Solid	3541	
500-202490-5	ED-R1SD-116	Total/NA	Solid	3541	
500-202490-6	ED-R1SD-DUP9	Total/NA	Solid	3541	
500-202490-7	ED-R1SD-117	Total/NA	Solid	3541	
500-202490-8	ED-R1SD-118	Total/NA	Solid	3541	
500-202490-9	ED-R1SD-119	Total/NA	Solid	3541	
MB 500-609804/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-609804/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202490-7 MS	ED-R1SD-117	Total/NA	Solid	3541	
500-202490-7 MSD	ED-R1SD-117	Total/NA	Solid	3541	

Analysis Batch: 609806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202490-1	ED-R1SD-SW110S-1	Total/NA	Solid	8082A	609804
500-202490-2	ED-R1SD-112	Total/NA	Solid	8082A	609804
500-202490-3	ED-R1SD-113	Total/NA	Solid	8082A	609804
500-202490-4	ED-R1SD-115	Total/NA	Solid	8082A	609804
500-202490-5	ED-R1SD-116	Total/NA	Solid	8082A	609804
500-202490-6	ED-R1SD-DUP9	Total/NA	Solid	8082A	609804
500-202490-7	ED-R1SD-117	Total/NA	Solid	8082A	609804
500-202490-8	ED-R1SD-118	Total/NA	Solid	8082A	609804
500-202490-9	ED-R1SD-119	Total/NA	Solid	8082A	609804
MB 500-609804/1-A	Method Blank	Total/NA	Solid	8082A	609804
LCS 500-609804/2-A	Lab Control Sample	Total/NA	Solid	8082A	609804
500-202490-7 MS	ED-R1SD-117	Total/NA	Solid	8082A	609804
500-202490-7 MSD	ED-R1SD-117	Total/NA	Solid	8082A	609804

General Chemistry

Analysis Batch: 609883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202490-1	ED-R1SD-SW110S-1	Total/NA	Solid	Moisture	
500-202490-2	ED-R1SD-112	Total/NA	Solid	Moisture	
500-202490-3	ED-R1SD-113	Total/NA	Solid	Moisture	
500-202490-4	ED-R1SD-115	Total/NA	Solid	Moisture	
500-202490-5	ED-R1SD-116	Total/NA	Solid	Moisture	
500-202490-6	ED-R1SD-DUP9	Total/NA	Solid	Moisture	
500-202490-7	ED-R1SD-117	Total/NA	Solid	Moisture	
500-202490-8	ED-R1SD-118	Total/NA	Solid	Moisture	
500-202490-9	ED-R1SD-119	Total/NA	Solid	Moisture	
500-202490-1 DU	ED-R1SD-SW110S-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-202490-1	ED-R1SD-SW110S-1	98	91
500-202490-2	ED-R1SD-112	83	78
500-202490-3	ED-R1SD-113	81	83
500-202490-4	ED-R1SD-115	75	65
500-202490-5	ED-R1SD-116	72	66
500-202490-6	ED-R1SD-DUP9	87	88
500-202490-7	ED-R1SD-117	68	71
500-202490-7 MS	ED-R1SD-117	64	71
500-202490-7 MSD	ED-R1SD-117	70	85
500-202490-8	ED-R1SD-118	60	79
500-202490-9	ED-R1SD-119	73	87
LCS 500-609804/2-A	Lab Control Sample	83	70
MB 500-609804/1-A	Method Blank	97	70

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-609804/1-A
Matrix: Solid
Analysis Batch: 609806

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 609804

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/16/21 16:45	07/16/21 22:14		20	
PCB-1221	<0.33		0.33		mg/Kg		07/16/21 16:45	07/16/21 22:14		20	
PCB-1232	<0.33		0.33		mg/Kg		07/16/21 16:45	07/16/21 22:14		20	
PCB-1242	<0.33		0.33		mg/Kg		07/16/21 16:45	07/16/21 22:14		20	
PCB-1248	<0.33		0.33		mg/Kg		07/16/21 16:45	07/16/21 22:14		20	
PCB-1254	<0.33		0.33		mg/Kg		07/16/21 16:45	07/16/21 22:14		20	
PCB-1260	<0.33		0.33		mg/Kg		07/16/21 16:45	07/16/21 22:14		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	97		49 - 129	07/16/21 16:45	07/16/21 22:14		20	
DCB Decachlorobiphenyl	70		37 - 121	07/16/21 16:45	07/16/21 22:14		20	

Lab Sample ID: LCS 500-609804/2-A
Matrix: Solid
Analysis Batch: 609806

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 609804

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.47		mg/Kg		88	57 - 120	
PCB-1260	1.67	1.46		mg/Kg		88	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	83		49 - 129
DCB Decachlorobiphenyl	70		37 - 121

Lab Sample ID: 500-202490-7 MS
Matrix: Solid
Analysis Batch: 609806

Client Sample ID: ED-R1SD-117
Prep Type: Total/NA
Prep Batch: 609804

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.41		2.06	1.62		mg/Kg	☼	79	57 - 120	
PCB-1260	<0.41		2.06	1.68		mg/Kg	☼	82	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	64		49 - 129
DCB Decachlorobiphenyl	71		37 - 121

Lab Sample ID: 500-202490-7 MSD
Matrix: Solid
Analysis Batch: 609806

Client Sample ID: ED-R1SD-117
Prep Type: Total/NA
Prep Batch: 609804

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.41		1.99	1.80		mg/Kg	☼	91	57 - 120	NC	30	
PCB-1260	<0.41		1.99	1.97		mg/Kg	☼	99	61 - 125	NC	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	70		49 - 129
DCB Decachlorobiphenyl	85		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-SW110S-1

Lab Sample ID: 500-202490-1

Date Collected: 07/15/21 16:31

Matrix: Solid

Date Received: 07/16/21 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-SW110S-1

Lab Sample ID: 500-202490-1

Date Collected: 07/15/21 16:31

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/16/21 22:45	PJ1	TAL CHI

Client Sample ID: ED-R1SD-112

Lab Sample ID: 500-202490-2

Date Collected: 07/15/21 15:06

Matrix: Solid

Date Received: 07/16/21 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-112

Lab Sample ID: 500-202490-2

Date Collected: 07/15/21 15:06

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 82.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/16/21 23:00	PJ1	TAL CHI

Client Sample ID: ED-R1SD-113

Lab Sample ID: 500-202490-3

Date Collected: 07/15/21 15:20

Matrix: Solid

Date Received: 07/16/21 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-113

Lab Sample ID: 500-202490-3

Date Collected: 07/15/21 15:20

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/16/21 23:15	PJ1	TAL CHI

Client Sample ID: ED-R1SD-115

Lab Sample ID: 500-202490-4

Date Collected: 07/15/21 16:00

Matrix: Solid

Date Received: 07/16/21 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-115

Lab Sample ID: 500-202490-4

Date Collected: 07/15/21 16:00

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 79.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/16/21 23:31	PJ1	TAL CHI

Client Sample ID: ED-R1SD-116

Lab Sample ID: 500-202490-5

Date Collected: 07/15/21 16:06

Matrix: Solid

Date Received: 07/16/21 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-116

Lab Sample ID: 500-202490-5

Date Collected: 07/15/21 16:06

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/16/21 23:46	PJ1	TAL CHI

Client Sample ID: ED-R1SD-DUP9

Lab Sample ID: 500-202490-6

Date Collected: 07/15/21 00:00

Matrix: Solid

Date Received: 07/16/21 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP9

Lab Sample ID: 500-202490-6

Date Collected: 07/15/21 00:00

Matrix: Solid

Date Received: 07/16/21 16:30

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/17/21 00:02	PJ1	TAL CHI

Client Sample ID: ED-R1SD-117

Lab Sample ID: 500-202490-7

Date Collected: 07/15/21 16:10

Matrix: Solid

Date Received: 07/16/21 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Client Sample ID: ED-R1SD-117

Date Collected: 07/15/21 16:10

Date Received: 07/16/21 16:30

Lab Sample ID: 500-202490-7

Matrix: Solid

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/17/21 00:17	PJ1	TAL CHI

Client Sample ID: ED-R1SD-118

Date Collected: 07/15/21 16:18

Date Received: 07/16/21 16:30

Lab Sample ID: 500-202490-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-118

Date Collected: 07/15/21 16:18

Date Received: 07/16/21 16:30

Lab Sample ID: 500-202490-8

Matrix: Solid

Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/17/21 01:03	PJ1	TAL CHI

Client Sample ID: ED-R1SD-119

Date Collected: 07/15/21 16:25

Date Received: 07/16/21 16:30

Lab Sample ID: 500-202490-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	609883	07/19/21 06:28	LWN	TAL CHI

Client Sample ID: ED-R1SD-119

Date Collected: 07/15/21 16:25

Date Received: 07/16/21 16:30

Lab Sample ID: 500-202490-9

Matrix: Solid

Percent Solids: 81.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			609804	07/16/21 16:45	JP1	TAL CHI
Total/NA	Analysis	8082A		20	609806	07/17/21 01:19	PJ1	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202490-1

Login Number: 202490

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

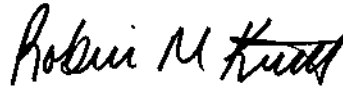
Laboratory Job ID: 500-202490-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/22/2021 2:44:40 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Job ID: 500-202490-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-202490-2**

Comments

No additional comments.

Receipt

The samples were received on 7/16/2021 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.5° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Client Sample ID: ED-R1SD-EB17

Lab Sample ID: 500-202490-10

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-202490-10	ED-R1SD-EB17	Water	07/16/21 09:15	07/16/21 16:30

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Client Sample ID: ED-R1SD-EB17

Lab Sample ID: 500-202490-10

Date Collected: 07/16/21 09:15

Matrix: Water

Date Received: 07/16/21 16:30

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00038		0.00038		mg/L		07/20/21 21:22	07/21/21 03:48	1
PCB-1221	<0.00038		0.00038		mg/L		07/20/21 21:22	07/21/21 03:48	1
PCB-1232	<0.00038		0.00038		mg/L		07/20/21 21:22	07/21/21 03:48	1
PCB-1242	<0.00038		0.00038		mg/L		07/20/21 21:22	07/21/21 03:48	1
PCB-1248	<0.00038		0.00038		mg/L		07/20/21 21:22	07/21/21 03:48	1
PCB-1254	<0.00038		0.00038		mg/L		07/20/21 21:22	07/21/21 03:48	1
PCB-1260	<0.00038		0.00038		mg/L		07/20/21 21:22	07/21/21 03:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		30 - 120	07/20/21 21:22	07/21/21 03:48	1
DCB Decachlorobiphenyl	59		30 - 140	07/20/21 21:22	07/21/21 03:48	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

GC Semi VOA

Prep Batch: 610312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202490-10	ED-R1SD-EB17	Total/NA	Water	3510C	
MB 500-610312/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-610312/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-610312/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 610319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202490-10	ED-R1SD-EB17	Total/NA	Water	8082A	610312
MB 500-610312/1-A	Method Blank	Total/NA	Water	8082A	610312
LCS 500-610312/2-A	Lab Control Sample	Total/NA	Water	8082A	610312
LCSD 500-610312/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	610312

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-202490-10	ED-R1SD-EB17	86	59
LCS 500-610312/2-A	Lab Control Sample	71	80
LCSD 500-610312/3-A	Lab Control Sample Dup	79	80
MB 500-610312/1-A	Method Blank	71	74

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-610312/1-A
Matrix: Water
Analysis Batch: 610319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610312

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1221	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1232	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1242	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1248	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1254	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1260	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	71		30 - 120	07/20/21 21:22	07/21/21 01:23	1
DCB Decachlorobiphenyl	74		30 - 140	07/20/21 21:22	07/21/21 01:23	1

Lab Sample ID: LCS 500-610312/2-A
Matrix: Water
Analysis Batch: 610319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610312

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00400	0.00310		mg/L		78	56 - 120
PCB-1260	0.00400	0.00360		mg/L		90	53 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	71		30 - 120
DCB Decachlorobiphenyl	80		30 - 140

Lab Sample ID: LCSD 500-610312/3-A
Matrix: Water
Analysis Batch: 610319

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 610312

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	
		Result	Qualifier					RPD	Limit
PCB-1016	0.00400	0.00349		mg/L		87	56 - 120	12	20
PCB-1260	0.00400	0.00380		mg/L		95	53 - 137	5	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		30 - 120
DCB Decachlorobiphenyl	80		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Client Sample ID: ED-R1SD-EB17

Lab Sample ID: 500-202490-10

Date Collected: 07/16/21 09:15

Matrix: Water

Date Received: 07/16/21 16:30

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			610312	07/20/21 21:22	ACK	TAL CHI
Total/NA	Analysis	8082A		1	610319	07/21/21 03:48	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202490-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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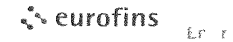
14

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: Kintz, Robin M		Lab PM: Kintz, Robin M		COC No: 500-92290-41114 1																							
Client Contact: Garrett Welch		Phone:		E-Mail: Robin.Kintz@Eurofinset.com		Page: Page 1 of																							
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requ: 500-202490 COC		Job #: 500-202490																							
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> </table>		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8092A - PCBs		<table border="1"> <tr><td>Total Number of containers</td><td></td></tr> </table>		Total Number of containers															
Field Filtered Sample (Yes or No)																													
Perform MS/MSD (Yes or No)																													
8092A - PCBs																													
Total Number of containers																													
City: Knoxville		TAT Requested (days):																											
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																											
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																											
Email: gwelch@cecinc.com		WO #:																											
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033																											
Site:		SSOW#:																											
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8092A - PCBs		Total Number of containers		Special Instructions/Note											
1 ED-RISD-SW11DS-1		7/15		1631		C		S																					
2 ED-RISD-112				1506		C		S																					
3 ED-RISD-113				1520		C		S																					
4 ED-RISD-115				1600		C		S																					
5 ED-RISD-116				1606		C		S																					
6 ED-RISD-DUP9				-		C		S																					
7 ED-RISD-117				1610		C		S		X		X				3													
8 ED-RISD-118				1618		C		S																					
9 ED-RISD-119				1625		C		S																					
10 ED-RISD-EB17		7/16		0915		G		W				X				2													
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																			
Deliverable Requested I II III IV Other (specify)										Special Instructions/QC Requirements																			
Empty Kit Relinquished by:					Date (Eastern)					Time					Method of Shipment:														
Relinquished by: <i>[Signature]</i>					Date/Time: 7/16/21 1500					Company: ETA					Received by: <i>[Signature]</i>					Date/Time: 7/16/21 1500					Company: ETA				
Relinquished by: <i>[Signature]</i>					Date/Time: 7/16/21 1630					Company: ETA					Received by: <i>[Signature]</i>					Date/Time: 7/16/21 1630					Company: ETA				
Relinquished by:					Date/Time:					Company:					Received by:					Date/Time:					Company:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No					Page 14 of 15					Cooler Temperature(s) °C and Other Remarks: 5.9-7 5.5					7/22/2021									

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202490-2

Login Number: 202490

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-202566-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/21/2021 12:02:01 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Job ID: 500-202566-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202566-1

Comments

No additional comments.

Receipt

The samples were received on 7/20/2021 12:07 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): ED-RISD-SW104S-2 (500-202566-4), ED-RISD-SW112S(3"-1') (500-202566-6) and ED-RISD-SW112S(1'-2') (500-202566-7).

Container label: ED-RISD-SW104S-2, COC has ED-RISD-SW104S for sample -4

Container label: ED-RISD-SW112S(3"-1'), COC has ED-RISD-SW112(3"-1') for sample -6

Container label: ED-RISD-SW112S(1'-2'), COC has ED-RISD-SW112(1'-2') for sample -7

All samples were logged per the container label ID as directed by the client.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: ED-RISD-079-2 (500-202566-1), ED-RISD-091-2 (500-202566-2), ED-RISD-110-1 (500-202566-3), ED-RISD-SW104S-2 (500-202566-4), ED-RISD-SW112S(0-3") (500-202566-5), ED-RISD-SW112S(3"-1') (500-202566-6), ED-RISD-SW112S(1'-2') (500-202566-7), ED-RISD-114 (500-202566-8), ED-RISD-114 (500-202566-8[MS]), ED-RISD-114 (500-202566-8[MSD]), ED-RISD-DUP10 (500-202566-9) and (CCVIS 500-610307/2). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-079-2

Lab Sample ID: 500-202566-1

No Detections.

Client Sample ID: ED-RISD-091-2

Lab Sample ID: 500-202566-2

No Detections.

Client Sample ID: ED-RISD-110-1

Lab Sample ID: 500-202566-3

No Detections.

Client Sample ID: ED-RISD-SW104S-2

Lab Sample ID: 500-202566-4

No Detections.

Client Sample ID: ED-RISD-SW112S(0-3")

Lab Sample ID: 500-202566-5

No Detections.

Client Sample ID: ED-RISD-SW112S(3"-1')

Lab Sample ID: 500-202566-6

No Detections.

Client Sample ID: ED-RISD-SW112S(1'-2')

Lab Sample ID: 500-202566-7

No Detections.

Client Sample ID: ED-RISD-114

Lab Sample ID: 500-202566-8

No Detections.

Client Sample ID: ED-RISD-DUP10

Lab Sample ID: 500-202566-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-202566-1	ED-RISD-079-2	Solid	07/20/21 08:30	07/20/21 12:07	
500-202566-2	ED-RISD-091-2	Solid	07/20/21 08:00	07/20/21 12:07	
500-202566-3	ED-RISD-110-1	Solid	07/20/21 09:00	07/20/21 12:07	
500-202566-4	ED-RISD-SW104S-2	Solid	07/20/21 10:50	07/20/21 12:07	
500-202566-5	ED-RISD-SW112S(0-3")	Solid	07/20/21 09:40	07/20/21 12:07	
500-202566-6	ED-RISD-SW112S(3"-1')	Solid	07/20/21 09:45	07/20/21 12:07	
500-202566-7	ED-RISD-SW112S(1'-2')	Solid	07/20/21 09:50	07/20/21 12:07	
500-202566-8	ED-RISD-114	Solid	07/20/21 09:20	07/20/21 12:07	
500-202566-9	ED-RISD-DUP10	Solid	07/20/21 09:00	07/20/21 12:07	

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-079-2

Lab Sample ID: 500-202566-1

Date Collected: 07/20/21 08:30

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 00:21	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 00:21	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 00:21	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 00:21	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 00:21	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 00:21	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 00:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	99		49 - 129	07/20/21 16:49	07/21/21 00:21	20
DCB Decachlorobiphenyl	71		37 - 121	07/20/21 16:49	07/21/21 00:21	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-091-2

Lab Sample ID: 500-202566-2

Date Collected: 07/20/21 08:00

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 80.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:36	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:36	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:36	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:36	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:36	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:36	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	07/20/21 16:49	07/21/21 00:36	20
DCB Decachlorobiphenyl	61		37 - 121	07/20/21 16:49	07/21/21 00:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-110-1

Lab Sample ID: 500-202566-3

Date Collected: 07/20/21 09:00

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 78.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:52	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:52	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:52	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:52	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:52	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:52	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 00:52	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	07/20/21 16:49	07/21/21 00:52	20
DCB Decachlorobiphenyl	49		37 - 121	07/20/21 16:49	07/21/21 00:52	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-SW104S-2

Lab Sample ID: 500-202566-4

Date Collected: 07/20/21 10:50

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 89.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/20/21 16:49	07/21/21 01:07	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/20/21 16:49	07/21/21 01:07	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/20/21 16:49	07/21/21 01:07	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/20/21 16:49	07/21/21 01:07	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/20/21 16:49	07/21/21 01:07	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/20/21 16:49	07/21/21 01:07	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/20/21 16:49	07/21/21 01:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	07/20/21 16:49	07/21/21 01:07	20
DCB Decachlorobiphenyl	69		37 - 121	07/20/21 16:49	07/21/21 01:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-SW112S(0-3")

Lab Sample ID: 500-202566-5

Date Collected: 07/20/21 09:40

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/20/21 16:49	07/21/21 01:23	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/20/21 16:49	07/21/21 01:23	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/20/21 16:49	07/21/21 01:23	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/20/21 16:49	07/21/21 01:23	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/20/21 16:49	07/21/21 01:23	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/20/21 16:49	07/21/21 01:23	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/20/21 16:49	07/21/21 01:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	07/20/21 16:49	07/21/21 01:23	20
DCB Decachlorobiphenyl	67		37 - 121	07/20/21 16:49	07/21/21 01:23	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-SW112S(3"-1')

Lab Sample ID: 500-202566-6

Date Collected: 07/20/21 09:45

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 83.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 01:38	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 01:38	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 01:38	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 01:38	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 01:38	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 01:38	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 01:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	07/20/21 16:49	07/21/21 01:38	20
DCB Decachlorobiphenyl	65		37 - 121	07/20/21 16:49	07/21/21 01:38	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-SW112S(1'-2')

Lab Sample ID: 500-202566-7

Date Collected: 07/20/21 09:50

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 85.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 01:53	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 01:53	20
PCB-1232	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 01:53	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 01:53	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 01:53	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 01:53	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/20/21 16:49	07/21/21 01:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		49 - 129	07/20/21 16:49	07/21/21 01:53	20
DCB Decachlorobiphenyl	67		37 - 121	07/20/21 16:49	07/21/21 01:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-114

Lab Sample ID: 500-202566-8

Date Collected: 07/20/21 09:20

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 83.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 02:09	20
PCB-1221	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 02:09	20
PCB-1232	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 02:09	20
PCB-1242	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 02:09	20
PCB-1248	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 02:09	20
PCB-1254	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 02:09	20
PCB-1260	<0.40		0.40		mg/Kg	☼	07/20/21 16:49	07/21/21 02:09	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	07/20/21 16:49	07/21/21 02:09	20
DCB Decachlorobiphenyl	66		37 - 121	07/20/21 16:49	07/21/21 02:09	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-DUP10

Lab Sample ID: 500-202566-9

Date Collected: 07/20/21 09:00

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 79.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 06:19	20
PCB-1221	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 06:19	20
PCB-1232	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 06:19	20
PCB-1242	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 06:19	20
PCB-1248	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 06:19	20
PCB-1254	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 06:19	20
PCB-1260	<0.42		0.42		mg/Kg	☼	07/20/21 16:49	07/21/21 06:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/20/21 16:49	07/21/21 06:19	20
DCB Decachlorobiphenyl	71		37 - 121	07/20/21 16:49	07/21/21 06:19	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

GC Semi VOA

Prep Batch: 610280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202566-1	ED-RISD-079-2	Total/NA	Solid	3541	
500-202566-2	ED-RISD-091-2	Total/NA	Solid	3541	
500-202566-3	ED-RISD-110-1	Total/NA	Solid	3541	
500-202566-4	ED-RISD-SW104S-2	Total/NA	Solid	3541	
500-202566-5	ED-RISD-SW112S(0-3")	Total/NA	Solid	3541	
500-202566-6	ED-RISD-SW112S(3"-1')	Total/NA	Solid	3541	
500-202566-7	ED-RISD-SW112S(1'-2')	Total/NA	Solid	3541	
500-202566-8	ED-RISD-114	Total/NA	Solid	3541	
500-202566-9	ED-RISD-DUP10	Total/NA	Solid	3541	
MB 500-610280/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-610280/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202566-8 MS	ED-RISD-114	Total/NA	Solid	3541	
500-202566-8 MSD	ED-RISD-114	Total/NA	Solid	3541	

Analysis Batch: 610307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202566-1	ED-RISD-079-2	Total/NA	Solid	8082A	610280
500-202566-2	ED-RISD-091-2	Total/NA	Solid	8082A	610280
500-202566-3	ED-RISD-110-1	Total/NA	Solid	8082A	610280
500-202566-4	ED-RISD-SW104S-2	Total/NA	Solid	8082A	610280
500-202566-5	ED-RISD-SW112S(0-3")	Total/NA	Solid	8082A	610280
500-202566-6	ED-RISD-SW112S(3"-1')	Total/NA	Solid	8082A	610280
500-202566-7	ED-RISD-SW112S(1'-2')	Total/NA	Solid	8082A	610280
500-202566-8	ED-RISD-114	Total/NA	Solid	8082A	610280
500-202566-9	ED-RISD-DUP10	Total/NA	Solid	8082A	610280
MB 500-610280/1-A	Method Blank	Total/NA	Solid	8082A	610280
LCS 500-610280/2-A	Lab Control Sample	Total/NA	Solid	8082A	610280
500-202566-8 MS	ED-RISD-114	Total/NA	Solid	8082A	610280
500-202566-8 MSD	ED-RISD-114	Total/NA	Solid	8082A	610280

General Chemistry

Analysis Batch: 610251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202566-1	ED-RISD-079-2	Total/NA	Solid	Moisture	
500-202566-2	ED-RISD-091-2	Total/NA	Solid	Moisture	
500-202566-3	ED-RISD-110-1	Total/NA	Solid	Moisture	
500-202566-4	ED-RISD-SW104S-2	Total/NA	Solid	Moisture	
500-202566-5	ED-RISD-SW112S(0-3")	Total/NA	Solid	Moisture	
500-202566-6	ED-RISD-SW112S(3"-1')	Total/NA	Solid	Moisture	
500-202566-7	ED-RISD-SW112S(1'-2')	Total/NA	Solid	Moisture	
500-202566-8	ED-RISD-114	Total/NA	Solid	Moisture	
500-202566-9	ED-RISD-DUP10	Total/NA	Solid	Moisture	
500-202566-1 DU	ED-RISD-079-2	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-202566-1	ED-RISD-079-2	99	71
500-202566-2	ED-RISD-091-2	80	61
500-202566-3	ED-RISD-110-1	66	49
500-202566-4	ED-RISD-SW104S-2	77	69
500-202566-5	ED-RISD-SW112S(0-3")	80	67
500-202566-6	ED-RISD-SW112S(3"-1')	77	65
500-202566-7	ED-RISD-SW112S(1'-2')	85	67
500-202566-8	ED-RISD-114	83	66
500-202566-8 MS	ED-RISD-114	85	70
500-202566-8 MSD	ED-RISD-114	76	66
500-202566-9	ED-RISD-DUP10	75	71
LCS 500-610280/2-A	Lab Control Sample	86	68
MB 500-610280/1-A	Method Blank	98	68

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-610280/1-A
Matrix: Solid
Analysis Batch: 610307

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610280

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/20/21 16:49	07/20/21 23:50		20	
PCB-1221	<0.33		0.33		mg/Kg		07/20/21 16:49	07/20/21 23:50		20	
PCB-1232	<0.33		0.33		mg/Kg		07/20/21 16:49	07/20/21 23:50		20	
PCB-1242	<0.33		0.33		mg/Kg		07/20/21 16:49	07/20/21 23:50		20	
PCB-1248	<0.33		0.33		mg/Kg		07/20/21 16:49	07/20/21 23:50		20	
PCB-1254	<0.33		0.33		mg/Kg		07/20/21 16:49	07/20/21 23:50		20	
PCB-1260	<0.33		0.33		mg/Kg		07/20/21 16:49	07/20/21 23:50		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	98		49 - 129	07/20/21 16:49	07/20/21 23:50		20	
DCB Decachlorobiphenyl	68		37 - 121	07/20/21 16:49	07/20/21 23:50		20	

Lab Sample ID: LCS 500-610280/2-A
Matrix: Solid
Analysis Batch: 610307

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610280

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.63		mg/Kg		98	57 - 120	
PCB-1260	1.67	1.63		mg/Kg		98	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	86		49 - 129
DCB Decachlorobiphenyl	68		37 - 121

Lab Sample ID: 500-202566-8 MS
Matrix: Solid
Analysis Batch: 610307

Client Sample ID: ED-RISD-114
Prep Type: Total/NA
Prep Batch: 610280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.40		1.99	1.96		mg/Kg	☼	98	57 - 120	
PCB-1260	<0.40		1.99	2.04		mg/Kg	☼	102	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	85		49 - 129
DCB Decachlorobiphenyl	70		37 - 121

Lab Sample ID: 500-202566-8 MSD
Matrix: Solid
Analysis Batch: 610307

Client Sample ID: ED-RISD-114
Prep Type: Total/NA
Prep Batch: 610280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.40		1.98	1.82		mg/Kg	☼	92	57 - 120	8	30	
PCB-1260	<0.40		1.98	1.86		mg/Kg	☼	94	61 - 125	9	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	76		49 - 129
DCB Decachlorobiphenyl	66		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-079-2

Lab Sample ID: 500-202566-1

Date Collected: 07/20/21 08:30

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Client Sample ID: ED-RISD-079-2

Lab Sample ID: 500-202566-1

Date Collected: 07/20/21 08:30

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 00:21	SS	TAL CHI

Client Sample ID: ED-RISD-091-2

Lab Sample ID: 500-202566-2

Date Collected: 07/20/21 08:00

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Client Sample ID: ED-RISD-091-2

Lab Sample ID: 500-202566-2

Date Collected: 07/20/21 08:00

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 80.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 00:36	SS	TAL CHI

Client Sample ID: ED-RISD-110-1

Lab Sample ID: 500-202566-3

Date Collected: 07/20/21 09:00

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Client Sample ID: ED-RISD-110-1

Lab Sample ID: 500-202566-3

Date Collected: 07/20/21 09:00

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 78.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 00:52	SS	TAL CHI

Client Sample ID: ED-RISD-SW104S-2

Lab Sample ID: 500-202566-4

Date Collected: 07/20/21 10:50

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-SW104S-2

Lab Sample ID: 500-202566-4

Date Collected: 07/20/21 10:50

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 01:07	SS	TAL CHI

Client Sample ID: ED-RISD-SW112S(0-3")

Lab Sample ID: 500-202566-5

Date Collected: 07/20/21 09:40

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Client Sample ID: ED-RISD-SW112S(0-3")

Lab Sample ID: 500-202566-5

Date Collected: 07/20/21 09:40

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 01:23	SS	TAL CHI

Client Sample ID: ED-RISD-SW112S(3"-1')

Lab Sample ID: 500-202566-6

Date Collected: 07/20/21 09:45

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Client Sample ID: ED-RISD-SW112S(3"-1')

Lab Sample ID: 500-202566-6

Date Collected: 07/20/21 09:45

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 01:38	SS	TAL CHI

Client Sample ID: ED-RISD-SW112S(1'-2')

Lab Sample ID: 500-202566-7

Date Collected: 07/20/21 09:50

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Client Sample ID: ED-RISD-SW112S(1'-2')

Lab Sample ID: 500-202566-7

Date Collected: 07/20/21 09:50

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 85.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 01:53	SS	TAL CHI

Client Sample ID: ED-RISD-114

Lab Sample ID: 500-202566-8

Date Collected: 07/20/21 09:20

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Client Sample ID: ED-RISD-114

Lab Sample ID: 500-202566-8

Date Collected: 07/20/21 09:20

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 02:09	SS	TAL CHI

Client Sample ID: ED-RISD-DUP10

Lab Sample ID: 500-202566-9

Date Collected: 07/20/21 09:00

Matrix: Solid

Date Received: 07/20/21 12:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610251	07/20/21 13:42	LWN	TAL CHI

Client Sample ID: ED-RISD-DUP10

Lab Sample ID: 500-202566-9

Date Collected: 07/20/21 09:00

Matrix: Solid

Date Received: 07/20/21 12:07

Percent Solids: 79.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610280	07/20/21 16:49	ACK	TAL CHI
Total/NA	Analysis	8082A		20	610307	07/21/21 06:19	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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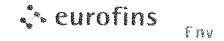
14


15

Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <i>I. JORGENSEN</i>		Lab PM: Kintz Robin M		Carner Tracking No(s)		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>224-250-5434</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 1 of Page 1 of	
Company: Civil & Environmental Consultants Inc		PWSID		 500-202566 COC				Job # <i>500-202566</i>	
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested							
City: Knoxville		TAT Requested (days): <i>RUSH 24HR</i>							
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 865-340-4914(Tel)		PO # Purchase Order not required							
Email: gwelch@cecinc.com		WO #		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		Total Number of containers	
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		8082A - PCBs				Preservation Codes	
Site		SSOW#						A - HCL M - Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V - MCAA K EDTA W pH 4-5 L EDA Z other (specify)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code	
<i>ED-RISD-079-2</i>		<i>7/24/21</i>		<i>0830</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-091-2</i>				<i>0800</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-118-1</i>				<i>0900</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-118-1</i>				<i>0900</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-SW104S</i>				<i>1050</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-SW112S(0-5")</i>				<i>0940</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-SW112(3"-1")</i>				<i>0945</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-SW112(1"-2")</i>				<i>0958</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-114 (MS/MSD)</i>				<i>0920</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-DUPIO</i>				<i>0900</i>		<i>L S</i>		<i>S</i>	
<i>ED-RISD-EB18</i>		<i>✓</i>		<i>1100</i>		<i>G W</i>		<i>W</i>	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I, II, III, IV Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date		Time		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/20/21 1705</i>		Company: <i>CSC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/20/21 1105</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/20/21 1207</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/20/21 1207</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>1.8 → 0.8</i>				7/21/2021	



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202566-1

Login Number: 202566

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

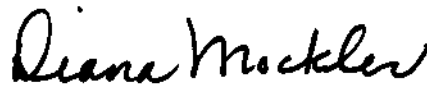
Laboratory Job ID: 500-202566-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

7/26/2021 4:07:17 PM

Diana Mockler, Project Manager I
(219)252-7570

Diana.Mockler@Eurofinset.com

Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Job ID: 500-202566-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202566-2

Comments

No additional comments.

Receipt

The samples were received on 7/20/2021 12:07 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.8° C.

Receipt Exceptions

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): ED-RISD-SW104S-2 (500-202566-4), ED-RISD-SW112S(3"-1') (500-202566-6) and ED-RISD-SW112S(1'-2') (500-202566-7).

Container label: ED-RISD-SW104S-2, COC has ED-RISD-SW104S for sample -4

Container label: ED-RISD-SW112S(3"-1'), COC has ED-RISD-SW112(3"-1') for sample -6

Container label: ED-RISD-SW112S(1'-2'), COC has ED-RISD-SW112(1'-2') for sample -7

All samples were logged per the container label ID as directed by the client.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Client Sample ID: ED-RISD-EB18

Lab Sample ID: 500-202566-10

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-202566-10	ED-RISD-EB18	Water	07/20/21 11:00	07/20/21 12:07

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Client Sample ID: ED-RISD-EB18

Lab Sample ID: 500-202566-10

Date Collected: 07/20/21 11:00

Matrix: Water

Date Received: 07/20/21 12:07

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00037		0.00037		mg/L		07/20/21 21:22	07/21/21 02:12	1
PCB-1221	<0.00037		0.00037		mg/L		07/20/21 21:22	07/21/21 02:12	1
PCB-1232	<0.00037		0.00037		mg/L		07/20/21 21:22	07/21/21 02:12	1
PCB-1242	<0.00037		0.00037		mg/L		07/20/21 21:22	07/21/21 02:12	1
PCB-1248	<0.00037		0.00037		mg/L		07/20/21 21:22	07/21/21 02:12	1
PCB-1254	<0.00037		0.00037		mg/L		07/20/21 21:22	07/21/21 02:12	1
PCB-1260	<0.00037		0.00037		mg/L		07/20/21 21:22	07/21/21 02:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		30 - 120	07/20/21 21:22	07/21/21 02:12	1
DCB Decachlorobiphenyl	50		30 - 140	07/20/21 21:22	07/21/21 02:12	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

GC Semi VOA

Prep Batch: 610312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202566-10	ED-RISD-EB18	Total/NA	Water	3510C	
MB 500-610312/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-610312/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-610312/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 610319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202566-10	ED-RISD-EB18	Total/NA	Water	8082A	610312
MB 500-610312/1-A	Method Blank	Total/NA	Water	8082A	610312
LCS 500-610312/2-A	Lab Control Sample	Total/NA	Water	8082A	610312
LCSD 500-610312/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	610312

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-202566-10	ED-RISD-EB18	57	50
LCS 500-610312/2-A	Lab Control Sample	71	80
LCSD 500-610312/3-A	Lab Control Sample Dup	79	80
MB 500-610312/1-A	Method Blank	71	74

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-610312/1-A
Matrix: Water
Analysis Batch: 610319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610312

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1221	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1232	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1242	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1248	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1254	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1
PCB-1260	<0.00040		0.00040		mg/L		07/20/21 21:22	07/21/21 01:23	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	71		30 - 120	07/20/21 21:22	07/21/21 01:23	1
DCB Decachlorobiphenyl	74		30 - 140	07/20/21 21:22	07/21/21 01:23	1

Lab Sample ID: LCS 500-610312/2-A
Matrix: Water
Analysis Batch: 610319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610312

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00400	0.00310		mg/L		78	56 - 120
PCB-1260	0.00400	0.00360		mg/L		90	53 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	71		30 - 120
DCB Decachlorobiphenyl	80		30 - 140

Lab Sample ID: LCSD 500-610312/3-A
Matrix: Water
Analysis Batch: 610319

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 610312

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	
		Result	Qualifier					RPD	Limit
PCB-1016	0.00400	0.00349		mg/L		87	56 - 120	12	20
PCB-1260	0.00400	0.00380		mg/L		95	53 - 137	5	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		30 - 120
DCB Decachlorobiphenyl	80		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Client Sample ID: ED-RISD-EB18

Lab Sample ID: 500-202566-10

Date Collected: 07/20/21 11:00

Matrix: Water

Date Received: 07/20/21 12:07

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			610312	07/20/21 21:22	ACK	TAL CHI
Total/NA	Analysis	8082A		1	610319	07/21/21 02:12	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202566-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202566-2

Login Number: 202566

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	IDs on containers do not match the COC. Logged in per COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

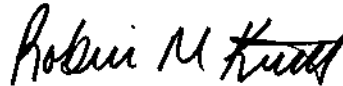
Laboratory Job ID: 500-202632-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/22/2021 2:29:25 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Job ID: 500-202632-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-202632-1

Comments

No additional comments.

Receipt

The samples were received on 7/21/2021 11:55 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9° C.

GC Semi VOA

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: ED-RISD-120 (500-202632-1), ED-RISD-SW112S-1 (500-202632-2), ED-RISD-SW114S (500-202632-3), ED-RISD-SW115N (500-202632-4), ED-RISD-SWDUP11 (500-202632-5) and (CCVIS 500-610390/2). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248 and PCB-1232: ED-RISD-SW115N (500-202632-4).

Method 8082A: The matrix spike (MS) recoveries for preparation batch 500-610484 and analytical batch 500-610390 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Client Sample ID: ED-RISD-120

Lab Sample ID: 500-202632-1

No Detections.

Client Sample ID: ED-RISD-SW112S-1

Lab Sample ID: 500-202632-2

No Detections.

Client Sample ID: ED-RISD-SW114S

Lab Sample ID: 500-202632-3

No Detections.

Client Sample ID: ED-RISD-SW115N

Lab Sample ID: 500-202632-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	0.78		0.39		mg/Kg	20	✱	8082A	Total/NA

Client Sample ID: ED-RISD-SWDUP11

Lab Sample ID: 500-202632-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-202632-1	ED-RISD-120	Solid	07/20/21 14:00	07/21/21 11:55
500-202632-2	ED-RISD-SW112S-1	Solid	07/20/21 16:00	07/21/21 11:55
500-202632-3	ED-RISD-SW114S	Solid	07/20/21 14:20	07/21/21 11:55
500-202632-4	ED-RISD-SW115N	Solid	07/20/21 14:30	07/21/21 11:55
500-202632-4 MS	ED-RISD-SW115N	Solid	07/20/21 14:30	07/21/21 11:55
500-202632-4 MSD	ED-RISD-SW115N	Solid	07/20/21 14:30	07/21/21 11:55
500-202632-5	ED-RISD-SWDUP11	Solid	07/20/21 14:20	07/21/21 11:55

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Client Sample ID: ED-RISD-120

Lab Sample ID: 500-202632-1

Date Collected: 07/20/21 14:00

Matrix: Solid

Date Received: 07/21/21 11:55

Percent Solids: 81.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.41		0.41		mg/Kg	☼	07/21/21 16:09	07/22/21 03:12	20
PCB-1221	<0.41		0.41		mg/Kg	☼	07/21/21 16:09	07/22/21 03:12	20
PCB-1232	<0.41		0.41		mg/Kg	☼	07/21/21 16:09	07/22/21 03:12	20
PCB-1242	<0.41		0.41		mg/Kg	☼	07/21/21 16:09	07/22/21 03:12	20
PCB-1248	<0.41		0.41		mg/Kg	☼	07/21/21 16:09	07/22/21 03:12	20
PCB-1254	<0.41		0.41		mg/Kg	☼	07/21/21 16:09	07/22/21 03:12	20
PCB-1260	<0.41		0.41		mg/Kg	☼	07/21/21 16:09	07/22/21 03:12	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		49 - 129	07/21/21 16:09	07/22/21 03:12	20
DCB Decachlorobiphenyl	93		37 - 121	07/21/21 16:09	07/22/21 03:12	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Client Sample ID: ED-RISD-SW112S-1

Lab Sample ID: 500-202632-2

Date Collected: 07/20/21 16:00

Matrix: Solid

Date Received: 07/21/21 11:55

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	07/21/21 16:09	07/22/21 03:27	20
PCB-1221	<0.37		0.37		mg/Kg	☼	07/21/21 16:09	07/22/21 03:27	20
PCB-1232	<0.37		0.37		mg/Kg	☼	07/21/21 16:09	07/22/21 03:27	20
PCB-1242	<0.37		0.37		mg/Kg	☼	07/21/21 16:09	07/22/21 03:27	20
PCB-1248	<0.37		0.37		mg/Kg	☼	07/21/21 16:09	07/22/21 03:27	20
PCB-1254	<0.37		0.37		mg/Kg	☼	07/21/21 16:09	07/22/21 03:27	20
PCB-1260	<0.37		0.37		mg/Kg	☼	07/21/21 16:09	07/22/21 03:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	07/21/21 16:09	07/22/21 03:27	20
DCB Decachlorobiphenyl	90		37 - 121	07/21/21 16:09	07/22/21 03:27	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Client Sample ID: ED-RISD-SW114S

Lab Sample ID: 500-202632-3

Date Collected: 07/20/21 14:20

Matrix: Solid

Date Received: 07/21/21 11:55

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 03:43	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 03:43	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 03:43	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 03:43	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 03:43	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 03:43	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 03:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	07/21/21 16:09	07/22/21 03:43	20
DCB Decachlorobiphenyl	91		37 - 121	07/21/21 16:09	07/22/21 03:43	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Client Sample ID: ED-RISD-SW115N

Lab Sample ID: 500-202632-4

Date Collected: 07/20/21 14:30

Matrix: Solid

Date Received: 07/21/21 11:55

Percent Solids: 84.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39	F1	0.39		mg/Kg	☼	07/21/21 16:09	07/22/21 03:58	20
PCB-1221	<0.39		0.39		mg/Kg	☼	07/21/21 16:09	07/22/21 03:58	20
PCB-1232	0.78		0.39		mg/Kg	☼	07/21/21 16:09	07/22/21 03:58	20
PCB-1242	<0.39		0.39		mg/Kg	☼	07/21/21 16:09	07/22/21 03:58	20
PCB-1248	<0.39		0.39		mg/Kg	☼	07/21/21 16:09	07/22/21 03:58	20
PCB-1254	<0.39		0.39		mg/Kg	☼	07/21/21 16:09	07/22/21 03:58	20
PCB-1260	<0.39		0.39		mg/Kg	☼	07/21/21 16:09	07/22/21 03:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	07/21/21 16:09	07/22/21 03:58	20
DCB Decachlorobiphenyl	97		37 - 121	07/21/21 16:09	07/22/21 03:58	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Client Sample ID: ED-RISD-SWDUP11

Lab Sample ID: 500-202632-5

Date Collected: 07/20/21 14:20

Matrix: Solid

Date Received: 07/21/21 11:55

Percent Solids: 85.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 04:45	20
PCB-1221	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 04:45	20
PCB-1232	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 04:45	20
PCB-1242	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 04:45	20
PCB-1248	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 04:45	20
PCB-1254	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 04:45	20
PCB-1260	<0.38		0.38		mg/Kg	☼	07/21/21 16:09	07/22/21 04:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		49 - 129	07/21/21 16:09	07/22/21 04:45	20
DCB Decachlorobiphenyl	92		37 - 121	07/21/21 16:09	07/22/21 04:45	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

GC Semi VOA

Analysis Batch: 610390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202632-1	ED-RISD-120	Total/NA	Solid	8082A	610484
500-202632-2	ED-RISD-SW112S-1	Total/NA	Solid	8082A	610484
500-202632-3	ED-RISD-SW114S	Total/NA	Solid	8082A	610484
500-202632-4	ED-RISD-SW115N	Total/NA	Solid	8082A	610484
500-202632-5	ED-RISD-SWDUP11	Total/NA	Solid	8082A	610484
MB 500-610484/1-A	Method Blank	Total/NA	Solid	8082A	610484
LCS 500-610484/2-A	Lab Control Sample	Total/NA	Solid	8082A	610484
500-202632-4 MS	ED-RISD-SW115N	Total/NA	Solid	8082A	610484
500-202632-4 MSD	ED-RISD-SW115N	Total/NA	Solid	8082A	610484

Prep Batch: 610484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202632-1	ED-RISD-120	Total/NA	Solid	3541	
500-202632-2	ED-RISD-SW112S-1	Total/NA	Solid	3541	
500-202632-3	ED-RISD-SW114S	Total/NA	Solid	3541	
500-202632-4	ED-RISD-SW115N	Total/NA	Solid	3541	
500-202632-5	ED-RISD-SWDUP11	Total/NA	Solid	3541	
MB 500-610484/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-610484/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-202632-4 MS	ED-RISD-SW115N	Total/NA	Solid	3541	
500-202632-4 MSD	ED-RISD-SW115N	Total/NA	Solid	3541	

General Chemistry

Analysis Batch: 610473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202632-1	ED-RISD-120	Total/NA	Solid	Moisture	
500-202632-2	ED-RISD-SW112S-1	Total/NA	Solid	Moisture	
500-202632-3	ED-RISD-SW114S	Total/NA	Solid	Moisture	
500-202632-4	ED-RISD-SW115N	Total/NA	Solid	Moisture	
500-202632-5	ED-RISD-SWDUP11	Total/NA	Solid	Moisture	
500-202632-1 DU	ED-RISD-120	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-202632-1	ED-RISD-120	79	93
500-202632-2	ED-RISD-SW112S-1	75	90
500-202632-3	ED-RISD-SW114S	71	91
500-202632-4	ED-RISD-SW115N	81	97
500-202632-4 MS	ED-RISD-SW115N	101	111
500-202632-4 MSD	ED-RISD-SW115N	88	95
500-202632-5	ED-RISD-SWDUP11	91	92
LCS 500-610484/2-A	Lab Control Sample	71	93
MB 500-610484/1-A	Method Blank	77	89

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-610484/1-A
Matrix: Solid
Analysis Batch: 610390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 610484

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		07/21/21 16:09	07/22/21 02:41		20	
PCB-1221	<0.33		0.33		mg/Kg		07/21/21 16:09	07/22/21 02:41		20	
PCB-1232	<0.33		0.33		mg/Kg		07/21/21 16:09	07/22/21 02:41		20	
PCB-1242	<0.33		0.33		mg/Kg		07/21/21 16:09	07/22/21 02:41		20	
PCB-1248	<0.33		0.33		mg/Kg		07/21/21 16:09	07/22/21 02:41		20	
PCB-1254	<0.33		0.33		mg/Kg		07/21/21 16:09	07/22/21 02:41		20	
PCB-1260	<0.33		0.33		mg/Kg		07/21/21 16:09	07/22/21 02:41		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	77		49 - 129	07/21/21 16:09	07/22/21 02:41		20	
DCB Decachlorobiphenyl	89		37 - 121	07/21/21 16:09	07/22/21 02:41		20	

Lab Sample ID: LCS 500-610484/2-A
Matrix: Solid
Analysis Batch: 610390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 610484

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.60		mg/Kg		96	57 - 120	
PCB-1260	1.67	1.80		mg/Kg		108	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	71		49 - 129
DCB Decachlorobiphenyl	93		37 - 121

Lab Sample ID: 500-202632-4 MS
Matrix: Solid
Analysis Batch: 610390

Client Sample ID: ED-RISD-SW115N
Prep Type: Total/NA
Prep Batch: 610484

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<0.39	F1	1.95	2.43	F1	mg/Kg	☼	124	57 - 120	
PCB-1260	<0.39		1.95	2.37		mg/Kg	☼	121	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	101		49 - 129
DCB Decachlorobiphenyl	111		37 - 121

Lab Sample ID: 500-202632-4 MSD
Matrix: Solid
Analysis Batch: 610390

Client Sample ID: ED-RISD-SW115N
Prep Type: Total/NA
Prep Batch: 610484

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<0.39	F1	1.90	2.06		mg/Kg	☼	108	57 - 120	17	30	
PCB-1260	<0.39		1.90	1.99		mg/Kg	☼	105	61 - 125	17	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	88		49 - 129
DCB Decachlorobiphenyl	95		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Client Sample ID: ED-RISD-120

Date Collected: 07/20/21 14:00

Date Received: 07/21/21 11:55

Lab Sample ID: 500-202632-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610473	07/21/21 15:25	LWN	TAL CHI

Client Sample ID: ED-RISD-120

Date Collected: 07/20/21 14:00

Date Received: 07/21/21 11:55

Lab Sample ID: 500-202632-1

Matrix: Solid

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610484	07/21/21 16:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	610390	07/22/21 03:12	JBj	TAL CHI

Client Sample ID: ED-RISD-SW112S-1

Date Collected: 07/20/21 16:00

Date Received: 07/21/21 11:55

Lab Sample ID: 500-202632-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610473	07/21/21 15:25	LWN	TAL CHI

Client Sample ID: ED-RISD-SW112S-1

Date Collected: 07/20/21 16:00

Date Received: 07/21/21 11:55

Lab Sample ID: 500-202632-2

Matrix: Solid

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610484	07/21/21 16:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	610390	07/22/21 03:27	JBj	TAL CHI

Client Sample ID: ED-RISD-SW114S

Date Collected: 07/20/21 14:20

Date Received: 07/21/21 11:55

Lab Sample ID: 500-202632-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610473	07/21/21 15:25	LWN	TAL CHI

Client Sample ID: ED-RISD-SW114S

Date Collected: 07/20/21 14:20

Date Received: 07/21/21 11:55

Lab Sample ID: 500-202632-3

Matrix: Solid

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610484	07/21/21 16:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	610390	07/22/21 03:43	JBj	TAL CHI

Client Sample ID: ED-RISD-SW115N

Date Collected: 07/20/21 14:30

Date Received: 07/21/21 11:55

Lab Sample ID: 500-202632-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610473	07/21/21 15:25	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Client Sample ID: ED-RISD-SW115N

Lab Sample ID: 500-202632-4

Date Collected: 07/20/21 14:30

Matrix: Solid

Date Received: 07/21/21 11:55

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610484	07/21/21 16:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	610390	07/22/21 03:58	JBj	TAL CHI

Client Sample ID: ED-RISD-SWDUP11

Lab Sample ID: 500-202632-5

Date Collected: 07/20/21 14:20

Matrix: Solid

Date Received: 07/21/21 11:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	610473	07/21/21 15:25	LWN	TAL CHI

Client Sample ID: ED-RISD-SWDUP11

Lab Sample ID: 500-202632-5

Date Collected: 07/20/21 14:20

Matrix: Solid

Date Received: 07/21/21 11:55

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			610484	07/21/21 16:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	610390	07/22/21 04:45	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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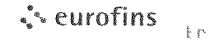
14

15

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <i>I. JORGENSEN</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No. 500-92290-41114 1									
Client Contact: Garrett Welch		Phone: <i>224-250-5434</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 1 of 1									
Company: Civil & Environmental Consultants Inc		PWSID		Analysis Requested				Job #: <i>500-202632</i>									
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform: MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> </table>				Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Preservation Codes		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)	
Field Filtered Sample (Yes or No)																	
Perform: MS/MSD (Yes or No)																	
8092A - PCBs																	
City: Knoxville		TAT Requested (days): <i>RUSH 24HR</i>						Total Number of containers									
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No															
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required															
Email: gwelch@cecinc.com		WO #:															
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033															
Site		SSOW#:															
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil)									
								BT=Tissue, AA=Air									
								Field Filtered Sample (Yes or No)									
								Perform: MS/MSD (Yes or No)									
								8092A - PCBs									
								Total Number of containers									
								Special Instructions/Note									
								Preservation Code.									
<i>1 ED-RISD-120</i>		<i>7/20/21</i>		<i>1400</i>		<i>C S</i>		<i>X</i>									
<i>2 ED-RISD-SW1125-1</i>		<i>7/20/21</i>		<i>1600</i>		<i>C S</i>		<i>X</i>									
<i>3 ED-RISD-SW1145</i>		<i>7/20/21</i>		<i>1420</i>		<i>C B</i>		<i>X</i>									
<i>4 ED-RISD-SW115A (ms/msd)</i>		<i>7/20/21</i>		<i>1430</i>		<i>C S</i>		<i>X</i>									
<i>5 ED-RISD-SW DUPII</i>		<i>7/20/21</i>		<i>1420</i>		<i>C S</i>		<i>X</i>									
<i>6 ED-RISD-EB14</i>		<i>7/24/21</i>		<i>1000</i>		<i>G W</i>		<i>X</i>									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)												
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months												
Deliverable Requested <i>I, II, III, IV, Other (specify)</i>					Special Instructions/QC Requirements												
Empty Kit Relinquished by:		Date		Time		Method of Shipment:											
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/21/21 1055</i>		Company: <i>CEL</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/21/21 1055</i>									
Relinquished by: <i>[Signature]</i>		Date/Time: <i>7/21/21 1155</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: <i>7/21/21 1155</i>									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <i>2.3 → 1.9</i>				7/22/2021									



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202632-1

Login Number: 202632

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

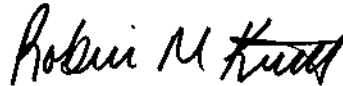
Laboratory Job ID: 500-202632-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
7/28/2021 2:21:41 PM

Robin Kintz, Project Manager II
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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Job ID: 500-202632-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-202632-2**

Comments

No additional comments.

Receipt

The samples were received on 7/21/2021 11:55 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.9° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Client Sample ID: ED-RISD-EB19

Lab Sample ID: 500-202632-6

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-202632-6	ED-RISD-EB19	Water	07/21/21 10:00	07/21/21 11:55

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Client Sample ID: ED-RISD-EB19

Lab Sample ID: 500-202632-6

Date Collected: 07/21/21 10:00

Matrix: Water

Date Received: 07/21/21 11:55

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00039		0.00039		mg/L		07/27/21 07:17	07/27/21 18:54	1
PCB-1221	<0.00039		0.00039		mg/L		07/27/21 07:17	07/27/21 18:54	1
PCB-1232	<0.00039		0.00039		mg/L		07/27/21 07:17	07/27/21 18:54	1
PCB-1242	<0.00039		0.00039		mg/L		07/27/21 07:17	07/27/21 18:54	1
PCB-1248	<0.00039		0.00039		mg/L		07/27/21 07:17	07/27/21 18:54	1
PCB-1254	<0.00039		0.00039		mg/L		07/27/21 07:17	07/27/21 18:54	1
PCB-1260	<0.00039		0.00039		mg/L		07/27/21 07:17	07/27/21 18:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	49		30 - 120	07/27/21 07:17	07/27/21 18:54	1
DCB Decachlorobiphenyl	86		30 - 140	07/27/21 07:17	07/27/21 18:54	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

GC Semi VOA

Prep Batch: 611214

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202632-6	ED-RISD-EB19	Total/NA	Water	3510C	
MB 500-611214/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-611214/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 611373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-202632-6	ED-RISD-EB19	Total/NA	Water	8082A	611214
MB 500-611214/1-A	Method Blank	Total/NA	Water	8082A	611214
LCS 500-611214/2-A	Lab Control Sample	Total/NA	Water	8082A	611214

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-202632-6	ED-RISD-EB19	49	86
LCS 500-611214/2-A	Lab Control Sample	38	55
MB 500-611214/1-A	Method Blank	37	54

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-611214/1-A
Matrix: Water
Analysis Batch: 611373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 611214

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		07/27/21 07:17	07/27/21 18:22	1
PCB-1221	<0.00040		0.00040		mg/L		07/27/21 07:17	07/27/21 18:22	1
PCB-1232	<0.00040		0.00040		mg/L		07/27/21 07:17	07/27/21 18:22	1
PCB-1242	<0.00040		0.00040		mg/L		07/27/21 07:17	07/27/21 18:22	1
PCB-1248	<0.00040		0.00040		mg/L		07/27/21 07:17	07/27/21 18:22	1
PCB-1254	<0.00040		0.00040		mg/L		07/27/21 07:17	07/27/21 18:22	1
PCB-1260	<0.00040		0.00040		mg/L		07/27/21 07:17	07/27/21 18:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	37		30 - 120	07/27/21 07:17	07/27/21 18:22	1
<i>DCB Decachlorobiphenyl</i>	54		30 - 140	07/27/21 07:17	07/27/21 18:22	1

Lab Sample ID: LCS 500-611214/2-A
Matrix: Water
Analysis Batch: 611373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 611214

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.00400	0.00294		mg/L		73	56 - 120
PCB-1260	0.00400	0.00382		mg/L		96	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>Tetrachloro-m-xylene</i>	38		30 - 120
<i>DCB Decachlorobiphenyl</i>	55		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Client Sample ID: ED-RISD-EB19

Lab Sample ID: 500-202632-6

Date Collected: 07/21/21 10:00

Matrix: Water

Date Received: 07/21/21 11:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			611214	07/27/21 07:17	SB	TAL CHI
Total/NA	Analysis	8082A		1	611373	07/27/21 18:54	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-202632-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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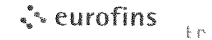
14

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <i>I. JORGENSEN</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No. 500-92290-41114 1																					
Client Contact: Garrett Welch		Phone: <i>224-250-5434</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 1 of 1																					
Company: Civil & Environmental Consultants Inc		PWSID		Analysis Requested				Job #: <i>500-202632</i>																					
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested																											
City: Knoxville		TAT Requested (days): <i>RUSH 24HR</i>		Field Filtered Sample (Yes or No) Perform: MS/MSD (Yes or No) 8092A - PCBs		Total Number of containers		Preservation Codes A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)																					
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																											
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required																											
Email: gwelch@cecinc.com		WO #:																											
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033																											
Site		SSOW#:																											
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, AA=Air)		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Total Number of containers		Special Instructions/Note											
																				Preservation Code.									
<i>1 ED-RISD-120</i>		<i>7/20/21</i>		<i>1400</i>		<i>C</i>		<i>S</i>		<i>X</i>																			
<i>2 ED-RISD-SW1125-1</i>		<i>7/20/21</i>		<i>1600</i>		<i>C</i>		<i>S</i>		<i>X</i>																			
<i>3 ED-RISD-SW1145</i>		<i>7/20/21</i>		<i>1420</i>		<i>C</i>		<i>B</i>		<i>X</i>																			
<i>4 ED-RISD-SW115A (ms/msd)</i>		<i>7/20/21</i>		<i>1430</i>		<i>C</i>		<i>S</i>		<i>X</i>																			
<i>5 ED-RISD-SWDUPII</i>		<i>7/20/21</i>		<i>1420</i>		<i>C</i>		<i>S</i>		<i>X</i>																			
<i>6 ED-RISD-EB14</i>		<i>7/24/21</i>		<i>1000</i>		<i>G</i>		<i>W</i>		<i>X</i>																			
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																			
Deliverable Requested <i>I, II, III, IV, Other (specify)</i>										Special Instructions/QC Requirements																			
Empty Kit Relinquished by:					Date:					Time:					Method of Shipment:														
Relinquished by: <i>[Signature]</i>					Date/Time: <i>7/21/21 1055</i>					Company: <i>CEL</i>					Received by: <i>[Signature]</i>					Date/Time: <i>7/21/21 1055</i>					Company: <i>ETA</i>				
Relinquished by: <i>[Signature]</i>					Date/Time: <i>7/21/21 1155</i>					Company: <i>ETA</i>					Received by: <i>[Signature]</i>					Date/Time: <i>7/21/21 1155</i>					Company: <i>ETA Ctl</i>				
Relinquished by:					Date/Time:					Company:					Received by:					Date/Time:					Company:				
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					Custody Seal No					Cooler Temperature(s) °C and Other Remarks: <i>2.3 → 1.9</i>					7/28/2021														



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-202632-2

Login Number: 202632

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203310-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/5/2021 4:16:28 PM

Robin Kintz, Project Manager II
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Job ID: 500-203310-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203310-1

Comments

No additional comments.

Receipt

The samples were received on 8/4/2021 4:08 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

GC Semi VOA

Method 8082A: The following samples required a dilution due to the nature of the sample matrix: ED-RISL-010 (500-203310-1) and ED-RISL-001 (500-203310-8). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-RISL-010 (500-203310-1), ED-RISL-012 (500-203310-3), ED-RISL-DUP001 (500-203310-4), ED-RISL-013 (500-203310-5), ED-RISL-001 (500-203310-8), ED-RISL-003 (500-203310-10), ED-RISL-004 (500-203310-11), ED-RISL-007 (500-203310-14) and ED-RISL-SW001 (500-203310-17).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-010

Lab Sample ID: 500-203310-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	37		7.3		mg/Kg	400	✳	8082A	Total/NA

Client Sample ID: ED-RISL-011

Lab Sample ID: 500-203310-2

No Detections.

Client Sample ID: ED-RISL-012

Lab Sample ID: 500-203310-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	3.7		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-RISL-DUP001

Lab Sample ID: 500-203310-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	3.6		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-RISL-013

Lab Sample ID: 500-203310-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.50		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-RISL-014

Lab Sample ID: 500-203310-6

No Detections.

Client Sample ID: ED-RISL-015

Lab Sample ID: 500-203310-7

No Detections.

Client Sample ID: ED-RISL-001

Lab Sample ID: 500-203310-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	25		7.3		mg/Kg	400	✳	8082A	Total/NA

Client Sample ID: ED-RISL-002

Lab Sample ID: 500-203310-9

No Detections.

Client Sample ID: ED-RISL-003

Lab Sample ID: 500-203310-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	8.2		3.6		mg/Kg	200	✳	8082A	Total/NA

Client Sample ID: ED-RISL-004

Lab Sample ID: 500-203310-11

No Detections.

Client Sample ID: ED-RISL-005

Lab Sample ID: 500-203310-12

No Detections.

Client Sample ID: ED-RISL-006

Lab Sample ID: 500-203310-13

No Detections.

Client Sample ID: ED-RISL-007

Lab Sample ID: 500-203310-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	2.3		0.39		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-008

Lab Sample ID: 500-203310-15

No Detections.

Client Sample ID: ED-RISL-009

Lab Sample ID: 500-203310-16

No Detections.

Client Sample ID: ED-RISL-SW001

Lab Sample ID: 500-203310-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	3.4		0.35		mg/Kg	20	*	8082A	Total/NA

Client Sample ID: ED-RISL-SW002

Lab Sample ID: 500-203310-18

No Detections.

Client Sample ID: ED-RISL-SW003

Lab Sample ID: 500-203310-19

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203310-1	ED-RISL-010	Solid	08/04/21 10:08	08/04/21 16:08
500-203310-2	ED-RISL-011	Solid	08/04/21 10:14	08/04/21 16:08
500-203310-3	ED-RISL-012	Solid	08/04/21 10:20	08/04/21 16:08
500-203310-4	ED-RISL-DUP001	Solid	08/04/21 00:00	08/04/21 16:08
500-203310-5	ED-RISL-013	Solid	08/04/21 10:25	08/04/21 16:08
500-203310-6	ED-RISL-014	Solid	08/04/21 10:30	08/04/21 16:08
500-203310-7	ED-RISL-015	Solid	08/04/21 10:34	08/04/21 16:08
500-203310-7 MS	ED-RISL-015	Solid	08/04/21 10:34	08/04/21 16:08
500-203310-7 MSD	ED-RISL-015	Solid	08/04/21 10:34	08/04/21 16:08
500-203310-8	ED-RISL-001	Solid	08/04/21 11:03	08/04/21 16:08
500-203310-9	ED-RISL-002	Solid	08/04/21 11:08	08/04/21 16:08
500-203310-10	ED-RISL-003	Solid	08/04/21 11:13	08/04/21 16:08
500-203310-11	ED-RISL-004	Solid	08/04/21 11:18	08/04/21 16:08
500-203310-12	ED-RISL-005	Solid	08/04/21 11:25	08/04/21 16:08
500-203310-13	ED-RISL-006	Solid	08/04/21 11:32	08/04/21 16:08
500-203310-14	ED-RISL-007	Solid	08/04/21 11:58	08/04/21 16:08
500-203310-15	ED-RISL-008	Solid	08/04/21 12:04	08/04/21 16:08
500-203310-16	ED-RISL-009	Solid	08/04/21 12:10	08/04/21 16:08
500-203310-17	ED-RISL-SW001	Solid	08/04/21 12:22	08/04/21 16:08
500-203310-18	ED-RISL-SW002	Solid	08/04/21 12:28	08/04/21 16:08
500-203310-19	ED-RISL-SW003	Solid	08/04/21 12:34	08/04/21 16:08

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-010

Lab Sample ID: 500-203310-1

Date Collected: 08/04/21 10:08

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 90.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.3		7.3		mg/Kg	✳	08/04/21 17:25	08/05/21 14:20	400
PCB-1221	<7.3		7.3		mg/Kg	✳	08/04/21 17:25	08/05/21 14:20	400
PCB-1232	<7.3		7.3		mg/Kg	✳	08/04/21 17:25	08/05/21 14:20	400
PCB-1242	<7.3		7.3		mg/Kg	✳	08/04/21 17:25	08/05/21 14:20	400
PCB-1248	37		7.3		mg/Kg	✳	08/04/21 17:25	08/05/21 14:20	400
PCB-1254	<7.3		7.3		mg/Kg	✳	08/04/21 17:25	08/05/21 14:20	400
PCB-1260	<7.3		7.3		mg/Kg	✳	08/04/21 17:25	08/05/21 14:20	400

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	D	49 - 129	08/04/21 17:25	08/05/21 14:20	400
DCB Decachlorobiphenyl	0	D	37 - 121	08/04/21 17:25	08/05/21 14:20	400

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-011

Lab Sample ID: 500-203310-2

Date Collected: 08/04/21 10:14

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 88.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:03	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:03	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:03	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:03	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:03	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:03	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:03	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	08/04/21 17:25	08/05/21 09:03	20
DCB Decachlorobiphenyl	64		37 - 121	08/04/21 17:25	08/05/21 09:03	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-012

Lab Sample ID: 500-203310-3

Date Collected: 08/04/21 10:20

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 91.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:19	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:19	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:19	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:19	20
PCB-1248	3.7		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:19	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:19	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	08/04/21 17:25	08/05/21 09:19	20
DCB Decachlorobiphenyl	79		37 - 121	08/04/21 17:25	08/05/21 09:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-DUP001

Lab Sample ID: 500-203310-4

Date Collected: 08/04/21 00:00

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 90.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:35	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:35	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:35	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:35	20
PCB-1248	3.6		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:35	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:35	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 09:35	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	60		49 - 129	08/04/21 17:25	08/05/21 09:35	20
<i>DCB Decachlorobiphenyl</i>	66		37 - 121	08/04/21 17:25	08/05/21 09:35	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-013

Lab Sample ID: 500-203310-5

Date Collected: 08/04/21 10:25

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 86.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 09:51	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 09:51	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 09:51	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 09:51	20
PCB-1248	0.50		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 09:51	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 09:51	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 09:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/04/21 17:25	08/05/21 09:51	20
DCB Decachlorobiphenyl	79		37 - 121	08/04/21 17:25	08/05/21 09:51	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-014

Lab Sample ID: 500-203310-6

Date Collected: 08/04/21 10:30

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 92.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 10:06	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 10:06	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 10:06	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 10:06	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 10:06	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 10:06	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 10:06	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	55		49 - 129	08/04/21 17:25	08/05/21 10:06	20
DCB Decachlorobiphenyl	66		37 - 121	08/04/21 17:25	08/05/21 10:06	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-015

Lab Sample ID: 500-203310-7

Date Collected: 08/04/21 10:34

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 10:22	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 10:22	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 10:22	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 10:22	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 10:22	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 10:22	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 10:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	59		49 - 129	08/04/21 17:25	08/05/21 10:22	20
DCB Decachlorobiphenyl	72		37 - 121	08/04/21 17:25	08/05/21 10:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-001

Lab Sample ID: 500-203310-8

Date Collected: 08/04/21 11:03

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 90.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.3		7.3		mg/Kg	☼	08/04/21 17:25	08/05/21 14:36	400
PCB-1221	<7.3		7.3		mg/Kg	☼	08/04/21 17:25	08/05/21 14:36	400
PCB-1232	<7.3		7.3		mg/Kg	☼	08/04/21 17:25	08/05/21 14:36	400
PCB-1242	<7.3		7.3		mg/Kg	☼	08/04/21 17:25	08/05/21 14:36	400
PCB-1248	25		7.3		mg/Kg	☼	08/04/21 17:25	08/05/21 14:36	400
PCB-1254	<7.3		7.3		mg/Kg	☼	08/04/21 17:25	08/05/21 14:36	400
PCB-1260	<7.3		7.3		mg/Kg	☼	08/04/21 17:25	08/05/21 14:36	400

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	D	49 - 129	08/04/21 17:25	08/05/21 14:36	400
DCB Decachlorobiphenyl	0	D	37 - 121	08/04/21 17:25	08/05/21 14:36	400

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-002

Lab Sample ID: 500-203310-9

Date Collected: 08/04/21 11:08

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 89.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 11:26	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 11:26	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 11:26	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 11:26	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 11:26	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 11:26	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 11:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	54		49 - 129	08/04/21 17:25	08/05/21 11:26	20
DCB Decachlorobiphenyl	67		37 - 121	08/04/21 17:25	08/05/21 11:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-003

Lab Sample ID: 500-203310-10

Date Collected: 08/04/21 11:13

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 91.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.6		3.6		mg/Kg	☼	08/04/21 17:25	08/05/21 14:52	200
PCB-1221	<3.6		3.6		mg/Kg	☼	08/04/21 17:25	08/05/21 14:52	200
PCB-1232	<3.6		3.6		mg/Kg	☼	08/04/21 17:25	08/05/21 14:52	200
PCB-1242	<3.6		3.6		mg/Kg	☼	08/04/21 17:25	08/05/21 14:52	200
PCB-1248	8.2		3.6		mg/Kg	☼	08/04/21 17:25	08/05/21 14:52	200
PCB-1254	<3.6		3.6		mg/Kg	☼	08/04/21 17:25	08/05/21 14:52	200
PCB-1260	<3.6		3.6		mg/Kg	☼	08/04/21 17:25	08/05/21 14:52	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	08/04/21 17:25	08/05/21 14:52	200
DCB Decachlorobiphenyl	74		37 - 121	08/04/21 17:25	08/05/21 14:52	200

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-004

Lab Sample ID: 500-203310-11

Date Collected: 08/04/21 11:18

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 89.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 11:58	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 11:58	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 11:58	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 11:58	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 11:58	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 11:58	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 11:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	08/04/21 17:25	08/05/21 11:58	20
DCB Decachlorobiphenyl	73		37 - 121	08/04/21 17:25	08/05/21 11:58	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-005

Lab Sample ID: 500-203310-12

Date Collected: 08/04/21 11:25

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 87.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 12:13	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 12:13	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 12:13	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 12:13	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 12:13	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 12:13	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/04/21 17:25	08/05/21 12:13	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	51		49 - 129	08/04/21 17:25	08/05/21 12:13	20
DCB Decachlorobiphenyl	65		37 - 121	08/04/21 17:25	08/05/21 12:13	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-006

Lab Sample ID: 500-203310-13

Date Collected: 08/04/21 11:32

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 12:29	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 12:29	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 12:29	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 12:29	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 12:29	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 12:29	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 12:29	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	08/04/21 17:25	08/05/21 12:29	20
DCB Decachlorobiphenyl	69		37 - 121	08/04/21 17:25	08/05/21 12:29	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-007

Lab Sample ID: 500-203310-14

Date Collected: 08/04/21 11:58

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/04/21 17:25	08/05/21 12:45	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/04/21 17:25	08/05/21 12:45	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/04/21 17:25	08/05/21 12:45	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/04/21 17:25	08/05/21 12:45	20
PCB-1248	2.3		0.39		mg/Kg	☼	08/04/21 17:25	08/05/21 12:45	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/04/21 17:25	08/05/21 12:45	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/04/21 17:25	08/05/21 12:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	08/04/21 17:25	08/05/21 12:45	20
DCB Decachlorobiphenyl	68		37 - 121	08/04/21 17:25	08/05/21 12:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-008

Lab Sample ID: 500-203310-15

Date Collected: 08/04/21 12:04

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 84.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:01	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:01	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:01	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:01	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:01	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:01	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		49 - 129	08/04/21 17:25	08/05/21 13:01	20
DCB Decachlorobiphenyl	72		37 - 121	08/04/21 17:25	08/05/21 13:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-009

Lab Sample ID: 500-203310-16

Date Collected: 08/04/21 12:10

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 85.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:17	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:17	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:17	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:17	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:17	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:17	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 13:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	08/04/21 17:25	08/05/21 13:17	20
DCB Decachlorobiphenyl	76		37 - 121	08/04/21 17:25	08/05/21 13:17	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-SW001

Lab Sample ID: 500-203310-17

Date Collected: 08/04/21 12:22

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 90.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	08/04/21 17:25	08/05/21 13:33	20
PCB-1221	<0.35		0.35		mg/Kg	☼	08/04/21 17:25	08/05/21 13:33	20
PCB-1232	<0.35		0.35		mg/Kg	☼	08/04/21 17:25	08/05/21 13:33	20
PCB-1242	<0.35		0.35		mg/Kg	☼	08/04/21 17:25	08/05/21 13:33	20
PCB-1248	3.4		0.35		mg/Kg	☼	08/04/21 17:25	08/05/21 13:33	20
PCB-1254	<0.35		0.35		mg/Kg	☼	08/04/21 17:25	08/05/21 13:33	20
PCB-1260	<0.35		0.35		mg/Kg	☼	08/04/21 17:25	08/05/21 13:33	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	55		49 - 129	08/04/21 17:25	08/05/21 13:33	20
<i>DCB Decachlorobiphenyl</i>	65		37 - 121	08/04/21 17:25	08/05/21 13:33	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-SW002

Lab Sample ID: 500-203310-18

Date Collected: 08/04/21 12:28

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 88.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 13:49	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 13:49	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 13:49	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 13:49	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 13:49	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 13:49	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/04/21 17:25	08/05/21 13:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		49 - 129	08/04/21 17:25	08/05/21 13:49	20
DCB Decachlorobiphenyl	66		37 - 121	08/04/21 17:25	08/05/21 13:49	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-SW003

Lab Sample ID: 500-203310-19

Date Collected: 08/04/21 12:34

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 14:05	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 14:05	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 14:05	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 14:05	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 14:05	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 14:05	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/04/21 17:25	08/05/21 14:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	55		49 - 129	08/04/21 17:25	08/05/21 14:05	20
DCB Decachlorobiphenyl	62		37 - 121	08/04/21 17:25	08/05/21 14:05	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

GC Semi VOA

Prep Batch: 612701

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203310-1	ED-RISL-010	Total/NA	Solid	3541	
500-203310-2	ED-RISL-011	Total/NA	Solid	3541	
500-203310-3	ED-RISL-012	Total/NA	Solid	3541	
500-203310-4	ED-RISL-DUP001	Total/NA	Solid	3541	
500-203310-5	ED-RISL-013	Total/NA	Solid	3541	
500-203310-6	ED-RISL-014	Total/NA	Solid	3541	
500-203310-7	ED-RISL-015	Total/NA	Solid	3541	
500-203310-8	ED-RISL-001	Total/NA	Solid	3541	
500-203310-9	ED-RISL-002	Total/NA	Solid	3541	
500-203310-10	ED-RISL-003	Total/NA	Solid	3541	
500-203310-11	ED-RISL-004	Total/NA	Solid	3541	
500-203310-12	ED-RISL-005	Total/NA	Solid	3541	
500-203310-13	ED-RISL-006	Total/NA	Solid	3541	
500-203310-14	ED-RISL-007	Total/NA	Solid	3541	
500-203310-15	ED-RISL-008	Total/NA	Solid	3541	
500-203310-16	ED-RISL-009	Total/NA	Solid	3541	
500-203310-17	ED-RISL-SW001	Total/NA	Solid	3541	
500-203310-18	ED-RISL-SW002	Total/NA	Solid	3541	
500-203310-19	ED-RISL-SW003	Total/NA	Solid	3541	
MB 500-612701/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-612701/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203310-7 MS	ED-RISL-015	Total/NA	Solid	3541	
500-203310-7 MSD	ED-RISL-015	Total/NA	Solid	3541	

Analysis Batch: 612783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203310-1	ED-RISL-010	Total/NA	Solid	8082A	612701
500-203310-2	ED-RISL-011	Total/NA	Solid	8082A	612701
500-203310-3	ED-RISL-012	Total/NA	Solid	8082A	612701
500-203310-4	ED-RISL-DUP001	Total/NA	Solid	8082A	612701
500-203310-5	ED-RISL-013	Total/NA	Solid	8082A	612701
500-203310-6	ED-RISL-014	Total/NA	Solid	8082A	612701
500-203310-7	ED-RISL-015	Total/NA	Solid	8082A	612701
500-203310-8	ED-RISL-001	Total/NA	Solid	8082A	612701
500-203310-9	ED-RISL-002	Total/NA	Solid	8082A	612701
500-203310-10	ED-RISL-003	Total/NA	Solid	8082A	612701
500-203310-11	ED-RISL-004	Total/NA	Solid	8082A	612701
500-203310-12	ED-RISL-005	Total/NA	Solid	8082A	612701
500-203310-13	ED-RISL-006	Total/NA	Solid	8082A	612701
500-203310-14	ED-RISL-007	Total/NA	Solid	8082A	612701
500-203310-15	ED-RISL-008	Total/NA	Solid	8082A	612701
500-203310-16	ED-RISL-009	Total/NA	Solid	8082A	612701
500-203310-17	ED-RISL-SW001	Total/NA	Solid	8082A	612701
500-203310-18	ED-RISL-SW002	Total/NA	Solid	8082A	612701
500-203310-19	ED-RISL-SW003	Total/NA	Solid	8082A	612701
MB 500-612701/1-A	Method Blank	Total/NA	Solid	8082A	612701
LCS 500-612701/2-A	Lab Control Sample	Total/NA	Solid	8082A	612701
500-203310-7 MS	ED-RISL-015	Total/NA	Solid	8082A	612701
500-203310-7 MSD	ED-RISL-015	Total/NA	Solid	8082A	612701

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

General Chemistry

Analysis Batch: 612751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203310-1	ED-RISL-010	Total/NA	Solid	Moisture	
500-203310-2	ED-RISL-011	Total/NA	Solid	Moisture	
500-203310-3	ED-RISL-012	Total/NA	Solid	Moisture	
500-203310-4	ED-RISL-DUP001	Total/NA	Solid	Moisture	
500-203310-5	ED-RISL-013	Total/NA	Solid	Moisture	
500-203310-6	ED-RISL-014	Total/NA	Solid	Moisture	
500-203310-7	ED-RISL-015	Total/NA	Solid	Moisture	
500-203310-8	ED-RISL-001	Total/NA	Solid	Moisture	
500-203310-9	ED-RISL-002	Total/NA	Solid	Moisture	
500-203310-10	ED-RISL-003	Total/NA	Solid	Moisture	
500-203310-11	ED-RISL-004	Total/NA	Solid	Moisture	
500-203310-12	ED-RISL-005	Total/NA	Solid	Moisture	
500-203310-13	ED-RISL-006	Total/NA	Solid	Moisture	
500-203310-14	ED-RISL-007	Total/NA	Solid	Moisture	
500-203310-15	ED-RISL-008	Total/NA	Solid	Moisture	
500-203310-16	ED-RISL-009	Total/NA	Solid	Moisture	
500-203310-17	ED-RISL-SW001	Total/NA	Solid	Moisture	
500-203310-18	ED-RISL-SW002	Total/NA	Solid	Moisture	
500-203310-19	ED-RISL-SW003	Total/NA	Solid	Moisture	
500-203310-1 DU	ED-RISL-010	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-203310-1	ED-RISL-010	0 D	0 D
500-203310-2	ED-RISL-011	56	64
500-203310-4	ED-RISL-DUP001	60	66
500-203310-6	ED-RISL-014	55	66
500-203310-7	ED-RISL-015	59	72
500-203310-7 MS	ED-RISL-015	55	70
500-203310-7 MSD	ED-RISL-015	59	67
500-203310-8	ED-RISL-001	0 D	0 D
500-203310-9	ED-RISL-002	54	67
500-203310-10	ED-RISL-003	56	74
500-203310-12	ED-RISL-005	51	65
500-203310-13	ED-RISL-006	60	69
500-203310-14	ED-RISL-007	61	68
500-203310-15	ED-RISL-008	57	72
500-203310-16	ED-RISL-009	66	76
500-203310-17	ED-RISL-SW001	55	65
500-203310-18	ED-RISL-SW002	56	66
500-203310-19	ED-RISL-SW003	55	62
LCS 500-612701/2-A	Lab Control Sample	64	69
MB 500-612701/1-A	Method Blank	58	64

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203310-3	ED-RISL-012	84	79
500-203310-5	ED-RISL-013	77	79
500-203310-11	ED-RISL-004	69	73

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-612701/1-A
Matrix: Solid
Analysis Batch: 612783

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612701

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/04/21 17:25	08/05/21 08:15	20
PCB-1221	<0.33		0.33		mg/Kg		08/04/21 17:25	08/05/21 08:15	20
PCB-1232	<0.33		0.33		mg/Kg		08/04/21 17:25	08/05/21 08:15	20
PCB-1242	<0.33		0.33		mg/Kg		08/04/21 17:25	08/05/21 08:15	20
PCB-1248	<0.33		0.33		mg/Kg		08/04/21 17:25	08/05/21 08:15	20
PCB-1254	<0.33		0.33		mg/Kg		08/04/21 17:25	08/05/21 08:15	20
PCB-1260	<0.33		0.33		mg/Kg		08/04/21 17:25	08/05/21 08:15	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	58		49 - 129	08/04/21 17:25	08/05/21 08:15	20
DCB Decachlorobiphenyl	64		37 - 121	08/04/21 17:25	08/05/21 08:15	20

Lab Sample ID: LCS 500-612701/2-A
Matrix: Solid
Analysis Batch: 612783

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612701

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.31		mg/Kg		79	57 - 120
PCB-1260	1.67	1.31		mg/Kg		79	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	64		49 - 129
DCB Decachlorobiphenyl	69		37 - 121

Lab Sample ID: 500-203310-7 MS
Matrix: Solid
Analysis Batch: 612783

Client Sample ID: ED-RISL-015
Prep Type: Total/NA
Prep Batch: 612701

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.37		1.92	1.44		mg/Kg	☼	75	57 - 120
PCB-1260	<0.37		1.92	1.49		mg/Kg	☼	78	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	55		49 - 129
DCB Decachlorobiphenyl	70		37 - 121

Lab Sample ID: 500-203310-7 MSD
Matrix: Solid
Analysis Batch: 612783

Client Sample ID: ED-RISL-015
Prep Type: Total/NA
Prep Batch: 612701

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.37		1.87	1.44		mg/Kg	☼	77	57 - 120	0	30
PCB-1260	<0.37		1.87	1.47		mg/Kg	☼	79	61 - 125	1	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	59		49 - 129
DCB Decachlorobiphenyl	67		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-010

Date Collected: 08/04/21 10:08

Date Received: 08/04/21 16:08

Lab Sample ID: 500-203310-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-010

Date Collected: 08/04/21 10:08

Date Received: 08/04/21 16:08

Lab Sample ID: 500-203310-1

Matrix: Solid

Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		400	612783	08/05/21 14:20	JBj	TAL CHI

Client Sample ID: ED-RISL-011

Date Collected: 08/04/21 10:14

Date Received: 08/04/21 16:08

Lab Sample ID: 500-203310-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-011

Date Collected: 08/04/21 10:14

Date Received: 08/04/21 16:08

Lab Sample ID: 500-203310-2

Matrix: Solid

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 09:03	JBj	TAL CHI

Client Sample ID: ED-RISL-012

Date Collected: 08/04/21 10:20

Date Received: 08/04/21 16:08

Lab Sample ID: 500-203310-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-012

Date Collected: 08/04/21 10:20

Date Received: 08/04/21 16:08

Lab Sample ID: 500-203310-3

Matrix: Solid

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 09:19	JBj	TAL CHI

Client Sample ID: ED-RISL-DUP001

Date Collected: 08/04/21 00:00

Date Received: 08/04/21 16:08

Lab Sample ID: 500-203310-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-DUP001

Lab Sample ID: 500-203310-4

Date Collected: 08/04/21 00:00

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 09:35	JBj	TAL CHI

Client Sample ID: ED-RISL-013

Lab Sample ID: 500-203310-5

Date Collected: 08/04/21 10:25

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-013

Lab Sample ID: 500-203310-5

Date Collected: 08/04/21 10:25

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 09:51	JBj	TAL CHI

Client Sample ID: ED-RISL-014

Lab Sample ID: 500-203310-6

Date Collected: 08/04/21 10:30

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-014

Lab Sample ID: 500-203310-6

Date Collected: 08/04/21 10:30

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 10:06	JBj	TAL CHI

Client Sample ID: ED-RISL-015

Lab Sample ID: 500-203310-7

Date Collected: 08/04/21 10:34

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-015

Lab Sample ID: 500-203310-7

Date Collected: 08/04/21 10:34

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 10:22	JBj	TAL CHI

Client Sample ID: ED-RISL-001

Lab Sample ID: 500-203310-8

Date Collected: 08/04/21 11:03

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-001

Lab Sample ID: 500-203310-8

Date Collected: 08/04/21 11:03

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 90.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		400	612783	08/05/21 14:36	JBj	TAL CHI

Client Sample ID: ED-RISL-002

Lab Sample ID: 500-203310-9

Date Collected: 08/04/21 11:08

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-002

Lab Sample ID: 500-203310-9

Date Collected: 08/04/21 11:08

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 11:26	JBj	TAL CHI

Client Sample ID: ED-RISL-003

Lab Sample ID: 500-203310-10

Date Collected: 08/04/21 11:13

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-003

Lab Sample ID: 500-203310-10

Date Collected: 08/04/21 11:13

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		200	612783	08/05/21 14:52	JBj	TAL CHI

Client Sample ID: ED-RISL-004

Lab Sample ID: 500-203310-11

Date Collected: 08/04/21 11:18

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-004

Lab Sample ID: 500-203310-11

Date Collected: 08/04/21 11:18

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 11:58	JBj	TAL CHI

Client Sample ID: ED-RISL-005

Lab Sample ID: 500-203310-12

Date Collected: 08/04/21 11:25

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-005

Lab Sample ID: 500-203310-12

Date Collected: 08/04/21 11:25

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 12:13	JBj	TAL CHI

Client Sample ID: ED-RISL-006

Lab Sample ID: 500-203310-13

Date Collected: 08/04/21 11:32

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-006

Lab Sample ID: 500-203310-13

Date Collected: 08/04/21 11:32

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 12:29	JBj	TAL CHI

Client Sample ID: ED-RISL-007

Lab Sample ID: 500-203310-14

Date Collected: 08/04/21 11:58

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-007

Lab Sample ID: 500-203310-14

Date Collected: 08/04/21 11:58

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 12:45	JBj	TAL CHI

Client Sample ID: ED-RISL-008

Lab Sample ID: 500-203310-15

Date Collected: 08/04/21 12:04

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-008

Lab Sample ID: 500-203310-15

Date Collected: 08/04/21 12:04

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 84.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 13:01	JBj	TAL CHI

Client Sample ID: ED-RISL-009

Lab Sample ID: 500-203310-16

Date Collected: 08/04/21 12:10

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-009

Lab Sample ID: 500-203310-16

Date Collected: 08/04/21 12:10

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 13:17	JBj	TAL CHI

Client Sample ID: ED-RISL-SW001

Lab Sample ID: 500-203310-17

Date Collected: 08/04/21 12:22

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-SW001

Lab Sample ID: 500-203310-17

Date Collected: 08/04/21 12:22

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 13:33	JBj	TAL CHI

Client Sample ID: ED-RISL-SW002

Lab Sample ID: 500-203310-18

Date Collected: 08/04/21 12:28

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Client Sample ID: ED-RISL-SW002

Lab Sample ID: 500-203310-18

Date Collected: 08/04/21 12:28

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 13:49	JBj	TAL CHI

Client Sample ID: ED-RISL-SW003

Lab Sample ID: 500-203310-19

Date Collected: 08/04/21 12:34

Matrix: Solid

Date Received: 08/04/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612751	08/05/21 06:59	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Client Sample ID: ED-RISL-SW003

Lab Sample ID: 500-203310-19

Date Collected: 08/04/21 12:34

Matrix: Solid

Date Received: 08/04/21 16:08

Percent Solids: 86.8

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			612701	08/04/21 17:25	JP1	TAL CHI
Total/NA	Analysis	8082A		20	612783	08/05/21 14:05	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

1

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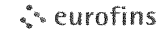
14


15

Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <u>G Welch</u>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1		
Client Contact: Garrett Welch		Phone: <u>865-440-1655</u>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin: <u>IN</u>		Page: Page 1 of 2		
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested				
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested		 500-203310 COC				
City: Knoxville				TAT Requested (days): <u>RUSH Same Day</u>						
State Zip: TN 37920				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						
Phone: 865-340-4914(Tel)				PO #: Purchase Order not required						
Email: gwelch@cecinc.com				WO #:						
Project Name: Arconic PCB Rush Project - Lafayette, IN				Project #: 50019033		Job #: <u>500-203310</u> Preservation Codes A HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J - DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:				
Site: <u>Elliott Ditch - Lower Reach 1</u>				SSOW#:						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note
				Preservation Code:		X	X		X	
1	ED-RISL-010	8/4/2021	1008	C	S				1	
2	ED-RISL-011	8/4/2021	1014	C	S				1	
3	ED-RISL-012	8/4/2021	1020	C	S				1	
4	ED-RISL-DUP001	8/4/2021		C	S				1	
5	ED-RISL-013	8/4/2021	1025	C	S				1	
6	ED-RISL-014	8/4/2021	1030	C	S				1	
7	ED-RISL-015	8/4/2021	1034	C	S	X	X		3	
8	ED-RISL-001	8/4/2021	1103	C	S				1	
9	ED-RISL-002	8/4/2021	1108	C	S				1	
10	ED-RISL-003	8/4/2021	1113	C	S				1	
11	ED-RISL-004	8/4/2021	1118	C	S				1	
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I II III IV, Other (specify)						Special Instructions/QC Requirements				
Empty Kit Relinquished by:			Date	Time	Method of Shipment.					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/4/21 1449</u>	Company: <u>CCL</u>	Received by: <u>[Signature]</u>		Date/Time: <u>8/4/21 1449</u>	Company: <u>EC</u>			
Relinquished by: <u>P. Neal</u>		Date/Time: <u>8/4/21 1608</u>	Company: <u>ETA</u>	Received by: <u>[Signature]</u>		Date/Time: <u>8/4/21 1608</u>	Company: <u>ETA CH</u>			
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:			
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks			48		8/5/2021	

Eurofins TestAmerica, Chicago
 2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler		Lab PM		Carrier Tracking No(s)		COC No:		
Client Contact: Garrett Welch		G. Welch		Kintz, Robin M				500-92290-41114 1		
Company Civil & Environmental Consultants Inc		Phone 865-440-1655		E-Mail Robin.Kintz@Eurofinset.com		State of Origin: IN		Page Page 2 of 2		
Address 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Analysis Requested				Job #: 500-203310		
City Knoxville		TAT Requested (days): RUSH Same Day						Preservation Codes		
State, Zip TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA		
Phone 865-340-4914(Tel)		PO #: Purchase Order not required						M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
Email gwelch@cecinc.com		WO #:						Other:		
Project Name Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033								
Site Elliott Ditch - Lower Reach 1		SSOW#:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of Containers	Special Instructions/Note:
						X	N		X	
12	ED-RISL-005	8/4/21	1125	C	S	X			1	
13	ED-RISL-006	8/4/21	1132	C	S	X			1	
14	ED-RISL-007	8/4/21	1158	C	S	X			1	
15	ED-RISL-008	8/4/21	1204	C	S	X			1	
16	ED-RISL-009	8/4/21	1210	C	S	X			1	
17	ED-RISL-SW001	8/4/21	1222	C	S	X			1	
18	ED-RISL-SW002	8/4/21	1228	C	S	X			1	
19	ED-RISL-SW003	8/4/21	1234	C	S	X			1	
20	ED-RISL-EB01	8/4/21	1345	G	W	X			2	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested I, II, III, IV, Other (specify) _____ Special Instructions/QC Requirements: _____

Empty Kit Relinquished by: _____		Date: _____		Time: _____		Method of Shipment _____	
Relinquished by: <i>JRW</i>	Date/Time: 8/4/21 1449	Company: <i>CBC</i>	Received by: <i>RJW</i>	Date/Time: 8/4/21 1749	Company: <i>EA</i>		
Relinquished by: <i>P. N. ...</i>	Date/Time: 8/4/21 1608	Company: <i>EA</i>	Received by: <i>Paula Buckley</i>	Date/Time: 8/4/21 1608	Company: <i>EA</i>		
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:		

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203310-1

Login Number: 203310

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203310-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/9/2021 3:47:26 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Job ID: 500-203310-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203310-2

Comments

No additional comments.

Receipt

The samples were received on 8/4/2021 4:08 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.8° C.

GC Semi VOA

Method 8082A: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 500-612843 and 500-612843 and analytical batch 500-612962 recovered outside control limits for the following analytes: Tetrachloro-m-xylene, PCB-1260 and PCB-1016. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Client Sample ID: ED-RISL-EB01

Lab Sample ID: 500-203310-20

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203310-20	ED-RISL-EB01	Water	08/04/21 13:45	08/04/21 16:08

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Client Sample ID: ED-RISL-EB01

Lab Sample ID: 500-203310-20

Date Collected: 08/04/21 13:45

Matrix: Water

Date Received: 08/04/21 16:08

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040	*+	0.00040		mg/L		08/05/21 09:49	08/06/21 11:09	1
PCB-1221	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 11:09	1
PCB-1232	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 11:09	1
PCB-1242	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 11:09	1
PCB-1248	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 11:09	1
PCB-1254	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 11:09	1
PCB-1260	<0.00040	*+	0.00040		mg/L		08/05/21 09:49	08/06/21 11:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		30 - 120	08/05/21 09:49	08/06/21 11:09	1
DCB Decachlorobiphenyl	49		30 - 140	08/05/21 09:49	08/06/21 11:09	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

GC Semi VOA

Prep Batch: 612843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203310-20	ED-RISL-EB01	Total/NA	Water	3510C	
MB 500-612843/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-612843/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-612843/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 612962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203310-20	ED-RISL-EB01	Total/NA	Water	8082A	612843
MB 500-612843/1-A	Method Blank	Total/NA	Water	8082A	612843
LCS 500-612843/4-A	Lab Control Sample	Total/NA	Water	8082A	612843
LCSD 500-612843/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	612843



Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-203310-20	ED-RISL-EB01	72	49
LCS 500-612843/4-A	Lab Control Sample	114	115
LCSD 500-612843/5-A	Lab Control Sample Dup	125 S1+	134
MB 500-612843/1-A	Method Blank	39	43

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-612843/1-A
Matrix: Water
Analysis Batch: 612962

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612843

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 07:39	1
PCB-1221	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 07:39	1
PCB-1232	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 07:39	1
PCB-1242	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 07:39	1
PCB-1248	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 07:39	1
PCB-1254	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 07:39	1
PCB-1260	<0.00040		0.00040		mg/L		08/05/21 09:49	08/06/21 07:39	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	39		30 - 120	08/05/21 09:49	08/06/21 07:39	1
DCB Decachlorobiphenyl	43		30 - 140	08/05/21 09:49	08/06/21 07:39	1

Lab Sample ID: LCS 500-612843/4-A
Matrix: Water
Analysis Batch: 612962

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612843

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00400	0.00528	*+	mg/L		132	56 - 120
PCB-1260	0.00400	0.00593	*+	mg/L		148	53 - 137

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	114		30 - 120
DCB Decachlorobiphenyl	115		30 - 140

Lab Sample ID: LCSD 500-612843/5-A
Matrix: Water
Analysis Batch: 612962

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 612843

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
PCB-1016	0.00400	0.00576	*+	mg/L		144	56 - 120	9	20
PCB-1260	0.00400	0.00642	*+	mg/L		161	53 - 137	8	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	125	S1+	30 - 120
DCB Decachlorobiphenyl	134		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Client Sample ID: ED-RISL-EB01

Lab Sample ID: 500-203310-20

Date Collected: 08/04/21 13:45

Matrix: Water

Date Received: 08/04/21 16:08

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			612843	08/05/21 09:49	DAK	TAL CHI
Total/NA	Analysis	8082A		1	612962	08/06/21 11:09	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203310-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <u>G Welch</u>		Lab PM: <u>Kintz, Robin M</u>		Carrier Tracking No(s)		COC No: <u>500-92290-41114 1</u>			
Client Contact: <u>Garrett Welch</u>		Phone: <u>865-440-1655</u>		E-Mail: <u>Robin Kintz@Eurofinset.com</u>		State of Origin: <u>IN</u>		Page: <u>Page 1 of 2</u>			
Company: <u>Civil & Environmental Consultants Inc</u>		PWSID:		Analysis Requested						Job #: <u>500-203310</u>	
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested		 <p>500-203310 COC</p>						Preservation Codes A HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J - DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:	
City: <u>Knoxville</u>		TAT Requested (days): <u>RUSH Same Day</u>									
State/Zip: <u>TN 37920</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No									
Phone: <u>865-340-4914(Tel)</u>		PO #: <u>Purchase Order not required</u>									
Email: <u>gwelch@cecinc.com</u>		WO #:		Field Filtered Sample (Yes or No)						Total Number of containers	
Project Name: <u>Arconic PCB Rush Project - Lafayette, IN</u>		Project #: <u>50019033</u>		Perform MS/MSD (Yes or No)							
Site: <u>Elliott Ditch - Lower Reach 1</u>		SSOW#:		8082A - PCBs							
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)						Special Instructions/Note
Preservation Code: <u>N</u>											
1	<u>ED-RISL-010</u>	<u>8/4/2021</u>	<u>1008</u>	<u>C</u>	<u>S</u>						<u>1</u>
2	<u>ED-RISL-011</u>	<u>8/4/2021</u>	<u>1014</u>	<u>C</u>	<u>S</u>						<u>1</u>
3	<u>ED-RISL-012</u>	<u>8/4/2021</u>	<u>1020</u>	<u>C</u>	<u>S</u>						<u>1</u>
4	<u>ED-RISL-DUP001</u>	<u>8/4/2021</u>		<u>C</u>	<u>S</u>						<u>1</u>
5	<u>ED-RISL-013</u>	<u>8/4/2021</u>	<u>1025</u>	<u>C</u>	<u>S</u>						<u>1</u>
6	<u>ED-RISL-014</u>	<u>8/4/2021</u>	<u>1030</u>	<u>C</u>	<u>S</u>						<u>1</u>
7	<u>ED-RISL-015</u>	<u>8/4/2021</u>	<u>1034</u>	<u>C</u>	<u>S</u>						<u>3</u>
8	<u>ED-RISL-001</u>	<u>8/4/2021</u>	<u>1103</u>	<u>C</u>	<u>S</u>						<u>1</u>
9	<u>ED-RISL-002</u>	<u>8/4/2021</u>	<u>1108</u>	<u>C</u>	<u>S</u>						<u>1</u>
10	<u>ED-RISL-003</u>	<u>8/4/2021</u>	<u>1113</u>	<u>C</u>	<u>S</u>						<u>1</u>
11	<u>ED-RISL-004</u>	<u>8/4/2021</u>	<u>1118</u>	<u>C</u>	<u>S</u>						<u>1</u>
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Deliverable Requested I II III IV, Other (specify)						Special Instructions/QC Requirements					
Empty Kit Relinquished by:			Date		Time		Method of Shipment.				
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/4/21 1449</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/4/21 1449</u>		Company: <u>EC</u>	
Relinquished by: <u>P. Neal</u>		Date/Time: <u>8/4/21 1608</u>		Company: <u>ETA</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/4/21 1608</u>		Company: <u>ETA CH</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks				<u>48</u>		8/9/2021	



Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler G. Welch		Lab PM Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1																									
Client Contact Garrett Welch		Phone 865-440-1655		E-Mail Robin.Kintz@Eurofinset.com		State of Origin: IN		Page Page 2 of 2																									
Company Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: 500-203310																							
Address 2704 Cherokee Farm Way Suite 101		Due Date Requested:		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8082A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Preservation Codes		A - HCL B - NaOH C - Zn Acetate D Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O AsNaO2 P - Na2O4S Q - Na2SO3 R Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z other (specify)															
Field Filtered Sample (Yes or No)																																	
Perform MS/MSD (Yes or No)																																	
8082A - PCBs																																	
City Knoxville		TAT Requested (days) RUSH Same Day								Special Instructions/Note:																							
State, Zip TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																															
Phone 865-340-4914(Tel)		PO #: Purchase Order not required																															
Email gwelch@cecinc.com		WO #:																															
Project Name Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033																															
Site Elliott Ditch - Lower Reach 1		SSOW#:																															
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		8082A - PCBs		Total Number of containers		Special Instructions/Note:															
12 ED-RISL-005		8/4/21		1125		C		S		X		X				1																	
13 ED-RISL-006		8/4/21		1132		C		S		X		X				1																	
14 ED-RISL-007		8/4/21		1158		C		S		X		X				1																	
15 ED-RISL-008		8/4/21		1204		C		S		X		X				1																	
16 ED-RISL-009		8/4/21		1210		C		S		X		X				1																	
17 ED-RISL-SW001		8/4/21		1222		C		S		X		X				1																	
18 ED-RISL-SW002		8/4/21		1228		C		S		X		X				1																	
19 ED-RISL-SW003		8/4/21		1234		C		S		X		X				1																	
20 ED-RISL-EB01		8/4/21		1345		G		W		X		X				2																	
Possible Hazard Identification										Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																							
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																							
Deliverable Requested I, II, III, IV, Other (specify)										Special Instructions/QC Requirements:																							
Empty Kit Relinquished by					Date					Time					Method of Shipment																		
Relinquished by: JAW					Date/Time: 8/4/21 1449					Company: CEC					Received by: M. Welch					Date/Time: 8/4/21 1749					Company: ECH								
Relinquished by: P. Welch					Date/Time: 8/4/21 1608					Company: ECH					Received by: Paula Buckley					Date/Time: 8/4/21 1608					Company: ECH								
Relinquished by:					Date/Time:					Company:					Received by:					Date/Time:					Company:								
Custody Seals Intact		Custody Seal No		Page 15 of 16										Cooler Temperature(s) °C and Other Remarks 4.8										8/9/2021									
<input type="checkbox"/> Yes <input type="checkbox"/> No																																	

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203310-2

Login Number: 203310

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203375-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/6/2021 2:29:34 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Job ID: 500-203375-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-203375-1**

Comments

No additional comments.

Receipt

The samples were received on 8/5/2021 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 10.8° C.

GC Semi VOA

Method 8082A: The following samples appear to contain polychlorinated biphenyls (PCBs); however, due to weathering or other environmental processes, the PCBs in the sample do not closely match any of the laboratory's Aroclor standards used for instrument calibration: ED-R1SD-122 (500-203375-2) and ED-R1SD-DUP11 (500-203375-3). The samples have been quantified and reported as PCB-1016. Due to the poor match with the Aroclor standards, there is increased qualitative and quantitative uncertainty associated with this result.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Client Sample ID: ED-R1SD-121

Lab Sample ID: 500-203375-1

No Detections.

Client Sample ID: ED-R1SD-122

Lab Sample ID: 500-203375-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	3.5		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-DUP11

Lab Sample ID: 500-203375-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1016	3.8		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SD-123

Lab Sample ID: 500-203375-4

No Detections.

Client Sample ID: ED-R1SD-124

Lab Sample ID: 500-203375-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203375-1	ED-R1SD-121	Solid	08/05/21 12:30	08/05/21 15:15
500-203375-2	ED-R1SD-122	Solid	08/05/21 12:40	08/05/21 15:15
500-203375-3	ED-R1SD-DUP11	Solid	08/05/21 00:00	08/05/21 15:15
500-203375-4	ED-R1SD-123	Solid	08/05/21 12:46	08/05/21 15:15
500-203375-5	ED-R1SD-124	Solid	08/05/21 13:00	08/05/21 15:15
500-203375-5 MS	ED-R1SD-124	Solid	08/05/21 13:00	08/05/21 15:15
500-203375-5 MSD	ED-R1SD-124	Solid	08/05/21 13:00	08/05/21 15:15

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Client Sample ID: ED-R1SD-121

Lab Sample ID: 500-203375-1

Date Collected: 08/05/21 12:30

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 84.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 08:45	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 08:45	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 08:45	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 08:45	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 08:45	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 08:45	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 08:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	08/05/21 16:34	08/06/21 08:45	20
DCB Decachlorobiphenyl	85		37 - 121	08/05/21 16:34	08/06/21 08:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Client Sample ID: ED-R1SD-122

Lab Sample ID: 500-203375-2

Date Collected: 08/05/21 12:40

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	3.5		0.40		mg/Kg	☼	08/05/21 16:34	08/06/21 09:01	20
PCB-1221	<0.40		0.40		mg/Kg	☼	08/05/21 16:34	08/06/21 09:01	20
PCB-1232	<0.40		0.40		mg/Kg	☼	08/05/21 16:34	08/06/21 09:01	20
PCB-1242	<0.40		0.40		mg/Kg	☼	08/05/21 16:34	08/06/21 09:01	20
PCB-1248	<0.40		0.40		mg/Kg	☼	08/05/21 16:34	08/06/21 09:01	20
PCB-1254	<0.40		0.40		mg/Kg	☼	08/05/21 16:34	08/06/21 09:01	20
PCB-1260	<0.40		0.40		mg/Kg	☼	08/05/21 16:34	08/06/21 09:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	08/05/21 16:34	08/06/21 09:01	20
DCB Decachlorobiphenyl	76		37 - 121	08/05/21 16:34	08/06/21 09:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Client Sample ID: ED-R1SD-DUP11

Lab Sample ID: 500-203375-3

Date Collected: 08/05/21 00:00

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	3.8		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 09:16	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 09:16	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 09:16	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 09:16	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 09:16	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 09:16	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/05/21 16:34	08/06/21 09:16	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	67		49 - 129	08/05/21 16:34	08/06/21 09:16	20
<i>DCB Decachlorobiphenyl</i>	86		37 - 121	08/05/21 16:34	08/06/21 09:16	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Client Sample ID: ED-R1SD-123

Lab Sample ID: 500-203375-4

Date Collected: 08/05/21 12:46

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 86.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:32	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:32	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:32	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:32	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:32	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:32	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:32	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	08/05/21 16:34	08/06/21 09:32	20
DCB Decachlorobiphenyl	80		37 - 121	08/05/21 16:34	08/06/21 09:32	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Client Sample ID: ED-R1SD-124

Lab Sample ID: 500-203375-5

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 87.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:47	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:47	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:47	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:47	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:47	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:47	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/05/21 16:34	08/06/21 09:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	08/05/21 16:34	08/06/21 09:47	20
DCB Decachlorobiphenyl	83		37 - 121	08/05/21 16:34	08/06/21 09:47	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

GC Semi VOA

Prep Batch: 612908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203375-1	ED-R1SD-121	Total/NA	Solid	3541	
500-203375-2	ED-R1SD-122	Total/NA	Solid	3541	
500-203375-3	ED-R1SD-DUP11	Total/NA	Solid	3541	
500-203375-4	ED-R1SD-123	Total/NA	Solid	3541	
500-203375-5	ED-R1SD-124	Total/NA	Solid	3541	
MB 500-612908/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-612908/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203375-5 MS	ED-R1SD-124	Total/NA	Solid	3541	
500-203375-5 MSD	ED-R1SD-124	Total/NA	Solid	3541	

Analysis Batch: 612986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203375-1	ED-R1SD-121	Total/NA	Solid	8082A	612908
500-203375-2	ED-R1SD-122	Total/NA	Solid	8082A	612908
500-203375-3	ED-R1SD-DUP11	Total/NA	Solid	8082A	612908
500-203375-4	ED-R1SD-123	Total/NA	Solid	8082A	612908
500-203375-5	ED-R1SD-124	Total/NA	Solid	8082A	612908
MB 500-612908/1-A	Method Blank	Total/NA	Solid	8082A	612908
LCS 500-612908/2-A	Lab Control Sample	Total/NA	Solid	8082A	612908
500-203375-5 MS	ED-R1SD-124	Total/NA	Solid	8082A	612908
500-203375-5 MSD	ED-R1SD-124	Total/NA	Solid	8082A	612908

General Chemistry

Analysis Batch: 612895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203375-1	ED-R1SD-121	Total/NA	Solid	Moisture	
500-203375-2	ED-R1SD-122	Total/NA	Solid	Moisture	
500-203375-3	ED-R1SD-DUP11	Total/NA	Solid	Moisture	
500-203375-4	ED-R1SD-123	Total/NA	Solid	Moisture	
500-203375-5	ED-R1SD-124	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203375-1	ED-R1SD-121	68	85
500-203375-2	ED-R1SD-122	61	76
500-203375-3	ED-R1SD-DUP11	67	86
500-203375-4	ED-R1SD-123	63	80
500-203375-5	ED-R1SD-124	63	83
500-203375-5 MS	ED-R1SD-124	71	94
500-203375-5 MSD	ED-R1SD-124	79	99
LCS 500-612908/2-A	Lab Control Sample	50	77
MB 500-612908/1-A	Method Blank	57	75

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-612908/1-A
Matrix: Solid
Analysis Batch: 612986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 612908

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/05/21 16:34	08/06/21 08:14	20
PCB-1221	<0.33		0.33		mg/Kg		08/05/21 16:34	08/06/21 08:14	20
PCB-1232	<0.33		0.33		mg/Kg		08/05/21 16:34	08/06/21 08:14	20
PCB-1242	<0.33		0.33		mg/Kg		08/05/21 16:34	08/06/21 08:14	20
PCB-1248	<0.33		0.33		mg/Kg		08/05/21 16:34	08/06/21 08:14	20
PCB-1254	<0.33		0.33		mg/Kg		08/05/21 16:34	08/06/21 08:14	20
PCB-1260	<0.33		0.33		mg/Kg		08/05/21 16:34	08/06/21 08:14	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	57		49 - 129	08/05/21 16:34	08/06/21 08:14	20
DCB Decachlorobiphenyl	75		37 - 121	08/05/21 16:34	08/06/21 08:14	20

Lab Sample ID: LCS 500-612908/2-A
Matrix: Solid
Analysis Batch: 612986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 612908

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	0.998		mg/Kg		60	57 - 120
PCB-1260	1.67	1.14		mg/Kg		69	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	50		49 - 129
DCB Decachlorobiphenyl	77		37 - 121

Lab Sample ID: 500-203375-5 MS
Matrix: Solid
Analysis Batch: 612986

Client Sample ID: ED-R1SD-124
Prep Type: Total/NA
Prep Batch: 612908

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.38		1.90	1.48		mg/Kg	☼	78	57 - 120
PCB-1260	<0.38		1.90	1.59		mg/Kg	☼	84	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	71		49 - 129
DCB Decachlorobiphenyl	94		37 - 121

Lab Sample ID: 500-203375-5 MSD
Matrix: Solid
Analysis Batch: 612986

Client Sample ID: ED-R1SD-124
Prep Type: Total/NA
Prep Batch: 612908

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.38		1.89	1.63		mg/Kg	☼	86	57 - 120	8	30
PCB-1260	<0.38		1.89	1.75		mg/Kg	☼	93	61 - 125	21	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		49 - 129
DCB Decachlorobiphenyl	99		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Client Sample ID: ED-R1SD-121

Lab Sample ID: 500-203375-1

Date Collected: 08/05/21 12:30

Matrix: Solid

Date Received: 08/05/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612895	08/05/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-121

Lab Sample ID: 500-203375-1

Date Collected: 08/05/21 12:30

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612908	08/05/21 16:34	ACK	TAL CHI
Total/NA	Analysis	8082A		20	612986	08/06/21 08:45	JBj	TAL CHI

Client Sample ID: ED-R1SD-122

Lab Sample ID: 500-203375-2

Date Collected: 08/05/21 12:40

Matrix: Solid

Date Received: 08/05/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612895	08/05/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-122

Lab Sample ID: 500-203375-2

Date Collected: 08/05/21 12:40

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612908	08/05/21 16:34	ACK	TAL CHI
Total/NA	Analysis	8082A		20	612986	08/06/21 09:01	JBj	TAL CHI

Client Sample ID: ED-R1SD-DUP11

Lab Sample ID: 500-203375-3

Date Collected: 08/05/21 00:00

Matrix: Solid

Date Received: 08/05/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612895	08/05/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-DUP11

Lab Sample ID: 500-203375-3

Date Collected: 08/05/21 00:00

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612908	08/05/21 16:34	ACK	TAL CHI
Total/NA	Analysis	8082A		20	612986	08/06/21 09:16	JBj	TAL CHI

Client Sample ID: ED-R1SD-123

Lab Sample ID: 500-203375-4

Date Collected: 08/05/21 12:46

Matrix: Solid

Date Received: 08/05/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612895	08/05/21 15:39	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Client Sample ID: ED-R1SD-123

Lab Sample ID: 500-203375-4

Date Collected: 08/05/21 12:46

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612908	08/05/21 16:34	ACK	TAL CHI
Total/NA	Analysis	8082A		20	612986	08/06/21 09:32	JBj	TAL CHI

Client Sample ID: ED-R1SD-124

Lab Sample ID: 500-203375-5

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/05/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	612895	08/05/21 15:39	LWN	TAL CHI

Client Sample ID: ED-R1SD-124

Lab Sample ID: 500-203375-5

Date Collected: 08/05/21 13:00

Matrix: Solid

Date Received: 08/05/21 15:15

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			612908	08/05/21 16:34	ACK	TAL CHI
Total/NA	Analysis	8082A		20	612986	08/06/21 09:47	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1																													
Client Contact: Garrett Welch		Phone <i>865-440-1655</i>		E-Mail Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: Page 1 of 1																													
Company Civil & Environmental Consultants Inc				PWSID:		Analysis Requested																															
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested:		<table border="1"> <tr> <td colspan="2">Preservation Codes:</td> </tr> <tr> <td>A - HCL</td> <td>M - Hexane</td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> </tr> <tr> <td>C - Zn Acetate</td> <td>O - AsNaO2</td> </tr> <tr> <td>D Nitric Acid</td> <td>P - Na2O4S</td> </tr> <tr> <td>E - NaHSO4</td> <td>Q - Na2SO3</td> </tr> <tr> <td>F - MeOH</td> <td>R - Na2S2O3</td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> </tr> <tr> <td>I - Ice</td> <td>U - Acetone</td> </tr> <tr> <td>J - DI Water</td> <td>V - MCAA</td> </tr> <tr> <td>K - EDTA</td> <td>W - pH 4-5</td> </tr> <tr> <td>L - EDA</td> <td>Z - other (specify)</td> </tr> <tr> <td colspan="2">Other:</td> </tr> </table>				Preservation Codes:		A - HCL	M - Hexane	B - NaOH	N - None	C - Zn Acetate	O - AsNaO2	D Nitric Acid	P - Na2O4S	E - NaHSO4	Q - Na2SO3	F - MeOH	R - Na2S2O3	G - Amchlor	S - H2SO4	H - Ascorbic Acid	T - TSP Dodecahydrate	I - Ice	U - Acetone	J - DI Water	V - MCAA	K - EDTA	W - pH 4-5	L - EDA	Z - other (specify)	Other:	
Preservation Codes:																																					
A - HCL	M - Hexane																																				
B - NaOH	N - None																																				
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J - DI Water	V - MCAA																																				
K - EDTA	W - pH 4-5																																				
L - EDA	Z - other (specify)																																				
Other:																																					
City Knoxville				TAT Requested (days): <i>RUSH - SAME DAY</i>																																	
State, Zip TN 37920				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																																	
Phone: 865-340-4914(Tel)				PO #: Purchase Order not required																																	
Email: gwelch@cecinc.com				WO #:																																	
Project Name: Arconic PCB Rush Project - Lafayette, IN				Project #: 50019033																																	
Site: <i>Elliott Ditch - LRI Sediment</i>				SSOW#:																																	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note:																											
				Preservation Code:																																	
<i>ED-RISD-121</i>		<i>8/5/21</i>	<i>1230</i>	<i>C</i>	<i>S</i>				<i>1</i>																												
<i>ED-RISD-122</i>		<i>8/5/21</i>	<i>1240</i>	<i>C</i>	<i>WS</i>				<i>1</i>																												
<i>ED-RISD-DUP11</i>		<i>8/5/21</i>		<i>C</i>	<i>WS</i>				<i>1</i>																												
<i>ED-RISD-123</i>		<i>8/5/21</i>	<i>1246</i>	<i>C</i>	<i>S</i>				<i>1</i>																												
<i>ED-RISD-124</i>		<i>8/5/21</i>	<i>1300</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<i>3</i>																												
<i>ED-RISD-ER20</i>		<i>8/5/21</i>	<i>1330</i>	<i>G</i>	<i>W</i>		<input checked="" type="checkbox"/>		<i>2</i>																												
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																															
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																															
Deliverable Requested I, II, III, IV, Other (specify)						Special Instructions/QC Requirements.																															
Empty Kit Relinquished by:			Date	Time	Method of Shipment																																
Relinquished by: <i>[Signature]</i>			Date/Time <i>8/5/21 1408</i>	Company <i>CBC</i>	Received by: <i>[Signature]</i>		Date/Time <i>8/5/21 1408</i>	Company <i>ETA</i>																													
Relinquished by: <i>[Signature]</i>			Date/Time <i>8/5/21 1515</i>	Company <i>ETA</i>	Received by: <i>[Signature]</i>		Date/Time <i>8/5/21 1515</i>	Company <i>ETA</i>																													
Relinquished by:			Date/Time	Company	Received by:		Date/Time	Company																													
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 19 of 20			Cooler Temperature(s) °C and Other Remarks <i>10.8</i>		8/6/2021																												

654321

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203375-1

Login Number: 203375

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	10.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

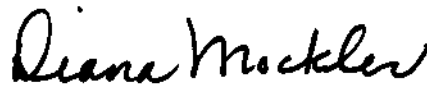
Laboratory Job ID: 500-203375-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

8/11/2021 2:45:09 PM

Diana Mockler, Project Manager I
(219)252-7570

Diana.Mockler@Eurofinset.com

Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Job ID: 500-203375-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-203375-2**

Comments

No additional comments.

Receipt

The samples were received on 8/5/2021 3:15 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 10.8° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Client Sample ID: ED-R1SD-EB20

Lab Sample ID: 500-203375-6

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203375-6	ED-R1SD-EB20	Water	08/05/21 13:30	08/05/21 15:15

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Client Sample ID: ED-R1SD-EB20

Lab Sample ID: 500-203375-6

Date Collected: 08/05/21 13:30

Matrix: Water

Date Received: 08/05/21 15:15

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00041		0.00041		mg/L		08/06/21 19:21	08/09/21 18:48	1
PCB-1221	<0.00041		0.00041		mg/L		08/06/21 19:21	08/09/21 18:48	1
PCB-1232	<0.00041		0.00041		mg/L		08/06/21 19:21	08/09/21 18:48	1
PCB-1242	<0.00041		0.00041		mg/L		08/06/21 19:21	08/09/21 18:48	1
PCB-1248	<0.00041		0.00041		mg/L		08/06/21 19:21	08/09/21 18:48	1
PCB-1254	<0.00041		0.00041		mg/L		08/06/21 19:21	08/09/21 18:48	1
PCB-1260	<0.00041		0.00041		mg/L		08/06/21 19:21	08/09/21 18:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		30 - 120	08/06/21 19:21	08/09/21 18:48	1
DCB Decachlorobiphenyl	101		30 - 140	08/06/21 19:21	08/09/21 18:48	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

GC Semi VOA

Prep Batch: 613143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203375-6	ED-R1SD-EB20	Total/NA	Water	3510C	
MB 500-613143/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-613143/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-613143/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 613365

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203375-6	ED-R1SD-EB20	Total/NA	Water	8082A	613143
MB 500-613143/1-A	Method Blank	Total/NA	Water	8082A	613143
LCS 500-613143/4-A	Lab Control Sample	Total/NA	Water	8082A	613143
LCSD 500-613143/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	613143



Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-203375-6	ED-R1SD-EB20	92	101
LCS 500-613143/4-A	Lab Control Sample	78	97
LCSD 500-613143/5-A	Lab Control Sample Dup	80	101
MB 500-613143/1-A	Method Blank	76	94

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-613143/1-A
Matrix: Water
Analysis Batch: 613365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		08/06/21 19:21	08/09/21 16:55	1
PCB-1221	<0.00040		0.00040		mg/L		08/06/21 19:21	08/09/21 16:55	1
PCB-1232	<0.00040		0.00040		mg/L		08/06/21 19:21	08/09/21 16:55	1
PCB-1242	<0.00040		0.00040		mg/L		08/06/21 19:21	08/09/21 16:55	1
PCB-1248	<0.00040		0.00040		mg/L		08/06/21 19:21	08/09/21 16:55	1
PCB-1254	<0.00040		0.00040		mg/L		08/06/21 19:21	08/09/21 16:55	1
PCB-1260	<0.00040		0.00040		mg/L		08/06/21 19:21	08/09/21 16:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		30 - 120	08/06/21 19:21	08/09/21 16:55	1
DCB Decachlorobiphenyl	94		30 - 140	08/06/21 19:21	08/09/21 16:55	1

Lab Sample ID: LCS 500-613143/4-A
Matrix: Water
Analysis Batch: 613365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613143

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00381		mg/L		95	56 - 120
PCB-1260	0.00400	0.00452		mg/L		113	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	78		30 - 120
DCB Decachlorobiphenyl	97		30 - 140

Lab Sample ID: LCSD 500-613143/5-A
Matrix: Water
Analysis Batch: 613365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 613143

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00390		mg/L		98	56 - 120	2	20
PCB-1260	0.00400	0.00463		mg/L		116	53 - 137	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	80		30 - 120
DCB Decachlorobiphenyl	101		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Client Sample ID: ED-R1SD-EB20

Lab Sample ID: 500-203375-6

Date Collected: 08/05/21 13:30

Matrix: Water

Date Received: 08/05/21 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			613143	08/06/21 19:21	JP1	TAL CHI
Total/NA	Analysis	8082A		1	613365	08/09/21 18:48	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203375-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203375-2

Login Number: 203375

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	10.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203469-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/10/2021 8:32:10 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Job ID: 500-203469-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203469-1

Comments

No additional comments.

Receipt

The samples were received on 8/6/2021 3:55 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.9° C.

GC Semi VOA

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SL-027 (500-203469-3), ED-R1SL-028 (500-203469-5), ED-R1SL-028 (500-203469-5[MS]), ED-R1SL-028 (500-203469-5[MSD]), ED-R1SL-042 (500-203469-6), ED-R1SL-043 (500-203469-7), ED-R1SL-051 (500-203469-14), ED-R1SL-SW004 (500-203469-15) and ED-R1SL-SW005 (500-203469-16).

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following continuing control verification (CCVIS) was outside control limits: (CCVIS 500-613257/2). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following samples was outside control limits: ED-R1SL-027 (500-203469-3), ED-R1SL-028 (500-203469-5), ED-R1SL-028 (500-203469-5[MS]), ED-R1SL-028 (500-203469-5[MSD]), ED-R1SL-042 (500-203469-6), ED-R1SL-044 (500-203469-8), ED-R1SL-048 (500-203469-10), ED-R1SL-045 (500-203469-12), ED-R1SL-047 (500-203469-13), ED-R1SL-051 (500-203469-14), ED-R1SL-SW004 (500-203469-15) and ED-R1SL-SW005 (500-203469-16). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-025

Lab Sample ID: 500-203469-1

No Detections.

Client Sample ID: ED-R1SL-026

Lab Sample ID: 500-203469-2

No Detections.

Client Sample ID: ED-R1SL-027

Lab Sample ID: 500-203469-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	12		3.8		mg/Kg	200	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-DUP002

Lab Sample ID: 500-203469-4

No Detections.

Client Sample ID: ED-R1SL-028

Lab Sample ID: 500-203469-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	11		3.8		mg/Kg	200	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-042

Lab Sample ID: 500-203469-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	7.9		3.6		mg/Kg	200	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-043

Lab Sample ID: 500-203469-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.84		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-044

Lab Sample ID: 500-203469-8

No Detections.

Client Sample ID: ED-R1SL-046

Lab Sample ID: 500-203469-9

No Detections.

Client Sample ID: ED-R1SL-048

Lab Sample ID: 500-203469-10

No Detections.

Client Sample ID: ED-R1SL-052

Lab Sample ID: 500-203469-11

No Detections.

Client Sample ID: ED-R1SL-045

Lab Sample ID: 500-203469-12

No Detections.

Client Sample ID: ED-R1SL-047

Lab Sample ID: 500-203469-13

No Detections.

Client Sample ID: ED-R1SL-051

Lab Sample ID: 500-203469-14

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-SW004

Lab Sample ID: 500-203469-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.42		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-SW005

Lab Sample ID: 500-203469-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.95		0.37		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

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Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203469-1	ED-R1SL-025	Solid	08/06/21 10:10	08/06/21 15:55
500-203469-2	ED-R1SL-026	Solid	08/06/21 10:17	08/06/21 15:55
500-203469-3	ED-R1SL-027	Solid	08/06/21 10:24	08/06/21 15:55
500-203469-4	ED-R1SL-DUP002	Solid	08/06/21 00:00	08/06/21 15:55
500-203469-5	ED-R1SL-028	Solid	08/06/21 10:32	08/06/21 15:55
500-203469-5 MS	ED-R1SL-028	Solid	08/06/21 10:32	08/06/21 15:55
500-203469-5 MSD	ED-R1SL-028	Solid	08/06/21 10:32	08/06/21 15:55
500-203469-6	ED-R1SL-042	Solid	08/06/21 11:10	08/06/21 15:55
500-203469-7	ED-R1SL-043	Solid	08/06/21 11:15	08/06/21 15:55
500-203469-8	ED-R1SL-044	Solid	08/06/21 11:19	08/06/21 15:55
500-203469-9	ED-R1SL-046	Solid	08/06/21 11:24	08/06/21 15:55
500-203469-10	ED-R1SL-048	Solid	08/06/21 11:34	08/06/21 15:55
500-203469-11	ED-R1SL-052	Solid	08/06/21 11:40	08/06/21 15:55
500-203469-12	ED-R1SL-045	Solid	08/06/21 11:57	08/06/21 15:55
500-203469-13	ED-R1SL-047	Solid	08/06/21 12:02	08/06/21 15:55
500-203469-14	ED-R1SL-051	Solid	08/06/21 12:10	08/06/21 15:55
500-203469-15	ED-R1SL-SW004	Solid	08/06/21 12:15	08/06/21 15:55
500-203469-16	ED-R1SL-SW005	Solid	08/06/21 12:24	08/06/21 15:55

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-025

Lab Sample ID: 500-203469-1

Date Collected: 08/06/21 10:10

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 84.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:08	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:08	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:08	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:08	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:08	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:08	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	08/06/21 16:06	08/09/21 10:08	20
DCB Decachlorobiphenyl	103		37 - 121	08/06/21 16:06	08/09/21 10:08	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-026

Lab Sample ID: 500-203469-2

Date Collected: 08/06/21 10:17

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 10:23	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 10:23	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 10:23	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 10:23	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 10:23	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 10:23	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 10:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		49 - 129	08/06/21 16:06	08/09/21 10:23	20
DCB Decachlorobiphenyl	104		37 - 121	08/06/21 16:06	08/09/21 10:23	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-027

Lab Sample ID: 500-203469-3

Date Collected: 08/06/21 10:24

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 14:45	200
PCB-1221	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 14:45	200
PCB-1232	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 14:45	200
PCB-1242	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 14:45	200
PCB-1248	12		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 14:45	200
PCB-1254	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 14:45	200
PCB-1260	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 14:45	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	69		49 - 129	08/06/21 16:06	08/09/21 14:45	200
<i>DCB Decachlorobiphenyl</i>	106		37 - 121	08/06/21 16:06	08/09/21 14:45	200

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-DUP002

Lab Sample ID: 500-203469-4

Date Collected: 08/06/21 00:00

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 85.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:54	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:54	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:54	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:54	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:54	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:54	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/06/21 16:06	08/09/21 10:54	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	08/06/21 16:06	08/09/21 10:54	20
DCB Decachlorobiphenyl	118		37 - 121	08/06/21 16:06	08/09/21 10:54	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-028

Lab Sample ID: 500-203469-5

Date Collected: 08/06/21 10:32

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 87.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.8	F1 F2	3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 15:01	200
PCB-1221	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 15:01	200
PCB-1232	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 15:01	200
PCB-1242	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 15:01	200
PCB-1248	11		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 15:01	200
PCB-1254	<3.8		3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 15:01	200
PCB-1260	<3.8	F1 F2	3.8		mg/Kg	☼	08/06/21 16:06	08/09/21 15:01	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	08/06/21 16:06	08/09/21 15:01	200
DCB Decachlorobiphenyl	115		37 - 121	08/06/21 16:06	08/09/21 15:01	200

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-042

Lab Sample ID: 500-203469-6

Date Collected: 08/06/21 11:10

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 90.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.6		3.6		mg/Kg	☼	08/06/21 16:06	08/09/21 15:47	200
PCB-1221	<3.6		3.6		mg/Kg	☼	08/06/21 16:06	08/09/21 15:47	200
PCB-1232	<3.6		3.6		mg/Kg	☼	08/06/21 16:06	08/09/21 15:47	200
PCB-1242	<3.6		3.6		mg/Kg	☼	08/06/21 16:06	08/09/21 15:47	200
PCB-1248	7.9		3.6		mg/Kg	☼	08/06/21 16:06	08/09/21 15:47	200
PCB-1254	<3.6		3.6		mg/Kg	☼	08/06/21 16:06	08/09/21 15:47	200
PCB-1260	<3.6		3.6		mg/Kg	☼	08/06/21 16:06	08/09/21 15:47	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/06/21 16:06	08/09/21 15:47	200
DCB Decachlorobiphenyl	119		37 - 121	08/06/21 16:06	08/09/21 15:47	200

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-043

Lab Sample ID: 500-203469-7

Date Collected: 08/06/21 11:15

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 91.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 12:11	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 12:11	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 12:11	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 12:11	20
PCB-1248	0.84		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 12:11	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 12:11	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 12:11	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	53		49 - 129	08/06/21 16:06	08/09/21 12:11	20
DCB Decachlorobiphenyl	70		37 - 121	08/06/21 16:06	08/09/21 12:11	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-044

Lab Sample ID: 500-203469-8

Date Collected: 08/06/21 11:19

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 91.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	08/06/21 16:06	08/09/21 12:27	20
PCB-1221	<0.35		0.35		mg/Kg	☼	08/06/21 16:06	08/09/21 12:27	20
PCB-1232	<0.35		0.35		mg/Kg	☼	08/06/21 16:06	08/09/21 12:27	20
PCB-1242	<0.35		0.35		mg/Kg	☼	08/06/21 16:06	08/09/21 12:27	20
PCB-1248	<0.35		0.35		mg/Kg	☼	08/06/21 16:06	08/09/21 12:27	20
PCB-1254	<0.35		0.35		mg/Kg	☼	08/06/21 16:06	08/09/21 12:27	20
PCB-1260	<0.35		0.35		mg/Kg	☼	08/06/21 16:06	08/09/21 12:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	08/06/21 16:06	08/09/21 12:27	20
DCB Decachlorobiphenyl	123	S1+	37 - 121	08/06/21 16:06	08/09/21 12:27	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-046

Lab Sample ID: 500-203469-9

Date Collected: 08/06/21 11:24

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 12:42	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 12:42	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 12:42	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 12:42	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 12:42	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 12:42	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 12:42	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	08/06/21 16:06	08/09/21 12:42	20
DCB Decachlorobiphenyl	114		37 - 121	08/06/21 16:06	08/09/21 12:42	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-048

Lab Sample ID: 500-203469-10

Date Collected: 08/06/21 11:34

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 12:58	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 12:58	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 12:58	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 12:58	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 12:58	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 12:58	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 12:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/06/21 16:06	08/09/21 12:58	20
DCB Decachlorobiphenyl	125	S1+	37 - 121	08/06/21 16:06	08/09/21 12:58	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-052

Lab Sample ID: 500-203469-11

Date Collected: 08/06/21 11:40

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 89.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:13	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:13	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:13	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:13	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:13	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:13	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:13	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	08/06/21 16:06	08/09/21 13:13	20
DCB Decachlorobiphenyl	109		37 - 121	08/06/21 16:06	08/09/21 13:13	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-045

Lab Sample ID: 500-203469-12

Date Collected: 08/06/21 11:57

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 13:28	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 13:28	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 13:28	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 13:28	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 13:28	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 13:28	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/06/21 16:06	08/09/21 13:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	08/06/21 16:06	08/09/21 13:28	20
DCB Decachlorobiphenyl	147	S1+	37 - 121	08/06/21 16:06	08/09/21 13:28	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-047

Lab Sample ID: 500-203469-13

Date Collected: 08/06/21 12:02

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 87.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 13:44	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 13:44	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 13:44	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 13:44	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 13:44	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 13:44	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 13:44	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	08/06/21 16:06	08/09/21 13:44	20
DCB Decachlorobiphenyl	129	S1+	37 - 121	08/06/21 16:06	08/09/21 13:44	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-051

Lab Sample ID: 500-203469-14

Date Collected: 08/06/21 12:10

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:59	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:59	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:59	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:59	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:59	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:59	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 13:59	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	08/06/21 16:06	08/09/21 13:59	20
DCB Decachlorobiphenyl	99		37 - 121	08/06/21 16:06	08/09/21 13:59	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-SW004

Lab Sample ID: 500-203469-15

Date Collected: 08/06/21 12:15

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 14:15	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 14:15	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 14:15	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 14:15	20
PCB-1248	0.42		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 14:15	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 14:15	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/06/21 16:06	08/09/21 14:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	66		49 - 129	08/06/21 16:06	08/09/21 14:15	20
<i>DCB Decachlorobiphenyl</i>	90		37 - 121	08/06/21 16:06	08/09/21 14:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-SW005

Lab Sample ID: 500-203469-16

Date Collected: 08/06/21 12:24

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 87.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 14:30	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 14:30	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 14:30	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 14:30	20
PCB-1248	0.95		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 14:30	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 14:30	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/06/21 16:06	08/09/21 14:30	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		49 - 129	08/06/21 16:06	08/09/21 14:30	20
DCB Decachlorobiphenyl	8	S1-	37 - 121	08/06/21 16:06	08/09/21 14:30	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

GC Semi VOA

Prep Batch: 613137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203469-1	ED-R1SL-025	Total/NA	Solid	3541	
500-203469-2	ED-R1SL-026	Total/NA	Solid	3541	
500-203469-3	ED-R1SL-027	Total/NA	Solid	3541	
500-203469-4	ED-R1SL-DUP002	Total/NA	Solid	3541	
500-203469-5	ED-R1SL-028	Total/NA	Solid	3541	
500-203469-6	ED-R1SL-042	Total/NA	Solid	3541	
500-203469-7	ED-R1SL-043	Total/NA	Solid	3541	
500-203469-8	ED-R1SL-044	Total/NA	Solid	3541	
500-203469-9	ED-R1SL-046	Total/NA	Solid	3541	
500-203469-10	ED-R1SL-048	Total/NA	Solid	3541	
500-203469-11	ED-R1SL-052	Total/NA	Solid	3541	
500-203469-12	ED-R1SL-045	Total/NA	Solid	3541	
500-203469-13	ED-R1SL-047	Total/NA	Solid	3541	
500-203469-14	ED-R1SL-051	Total/NA	Solid	3541	
500-203469-15	ED-R1SL-SW004	Total/NA	Solid	3541	
500-203469-16	ED-R1SL-SW005	Total/NA	Solid	3541	
MB 500-613137/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-613137/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203469-5 MS	ED-R1SL-028	Total/NA	Solid	3541	
500-203469-5 MSD	ED-R1SL-028	Total/NA	Solid	3541	

Analysis Batch: 613257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203469-1	ED-R1SL-025	Total/NA	Solid	8082A	613137
500-203469-2	ED-R1SL-026	Total/NA	Solid	8082A	613137
500-203469-3	ED-R1SL-027	Total/NA	Solid	8082A	613137
500-203469-4	ED-R1SL-DUP002	Total/NA	Solid	8082A	613137
500-203469-5	ED-R1SL-028	Total/NA	Solid	8082A	613137
500-203469-6	ED-R1SL-042	Total/NA	Solid	8082A	613137
500-203469-7	ED-R1SL-043	Total/NA	Solid	8082A	613137
500-203469-8	ED-R1SL-044	Total/NA	Solid	8082A	613137
500-203469-9	ED-R1SL-046	Total/NA	Solid	8082A	613137
500-203469-10	ED-R1SL-048	Total/NA	Solid	8082A	613137
500-203469-11	ED-R1SL-052	Total/NA	Solid	8082A	613137
500-203469-12	ED-R1SL-045	Total/NA	Solid	8082A	613137
500-203469-13	ED-R1SL-047	Total/NA	Solid	8082A	613137
500-203469-14	ED-R1SL-051	Total/NA	Solid	8082A	613137
500-203469-15	ED-R1SL-SW004	Total/NA	Solid	8082A	613137
500-203469-16	ED-R1SL-SW005	Total/NA	Solid	8082A	613137
MB 500-613137/1-A	Method Blank	Total/NA	Solid	8082A	613137
LCS 500-613137/2-A	Lab Control Sample	Total/NA	Solid	8082A	613137
500-203469-5 MS	ED-R1SL-028	Total/NA	Solid	8082A	613137
500-203469-5 MSD	ED-R1SL-028	Total/NA	Solid	8082A	613137

General Chemistry

Analysis Batch: 613205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203469-1	ED-R1SL-025	Total/NA	Solid	Moisture	
500-203469-2	ED-R1SL-026	Total/NA	Solid	Moisture	
500-203469-3	ED-R1SL-027	Total/NA	Solid	Moisture	

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

General Chemistry (Continued)

Analysis Batch: 613205 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203469-4	ED-R1SL-DUP002	Total/NA	Solid	Moisture	
500-203469-5	ED-R1SL-028	Total/NA	Solid	Moisture	
500-203469-6	ED-R1SL-042	Total/NA	Solid	Moisture	
500-203469-7	ED-R1SL-043	Total/NA	Solid	Moisture	
500-203469-8	ED-R1SL-044	Total/NA	Solid	Moisture	
500-203469-9	ED-R1SL-046	Total/NA	Solid	Moisture	
500-203469-10	ED-R1SL-048	Total/NA	Solid	Moisture	
500-203469-11	ED-R1SL-052	Total/NA	Solid	Moisture	
500-203469-12	ED-R1SL-045	Total/NA	Solid	Moisture	
500-203469-13	ED-R1SL-047	Total/NA	Solid	Moisture	
500-203469-14	ED-R1SL-051	Total/NA	Solid	Moisture	
500-203469-15	ED-R1SL-SW004	Total/NA	Solid	Moisture	
500-203469-16	ED-R1SL-SW005	Total/NA	Solid	Moisture	
500-203469-1 DU	ED-R1SL-025	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-203469-1	ED-R1SL-025	68	103
500-203469-2	ED-R1SL-026	64	104
500-203469-4	ED-R1SL-DUP002	76	118
500-203469-8	ED-R1SL-044	72	123 S1+
500-203469-9	ED-R1SL-046	61	114
500-203469-10	ED-R1SL-048	77	125 S1+
500-203469-11	ED-R1SL-052	65	109
500-203469-12	ED-R1SL-045	83	147 S1+
500-203469-13	ED-R1SL-047	74	129 S1+
500-203469-16	ED-R1SL-SW005	79	8 S1-
LCS 500-613137/2-A	Lab Control Sample	65	105
MB 500-613137/1-A	Method Blank	59	90

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203469-3	ED-R1SL-027	69	106
500-203469-5	ED-R1SL-028	73	115
500-203469-5 MS	ED-R1SL-028	72	128 S1+
500-203469-5 MSD	ED-R1SL-028	71	132 S1+
500-203469-6	ED-R1SL-042	77	119
500-203469-7	ED-R1SL-043	53	70
500-203469-14	ED-R1SL-051	76	99
500-203469-15	ED-R1SL-SW004	66	90

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-613137/1-A
Matrix: Solid
Analysis Batch: 613257

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613137

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		08/06/21 16:06	08/09/21 09:37		20	
PCB-1221	<0.33		0.33		mg/Kg		08/06/21 16:06	08/09/21 09:37		20	
PCB-1232	<0.33		0.33		mg/Kg		08/06/21 16:06	08/09/21 09:37		20	
PCB-1242	<0.33		0.33		mg/Kg		08/06/21 16:06	08/09/21 09:37		20	
PCB-1248	<0.33		0.33		mg/Kg		08/06/21 16:06	08/09/21 09:37		20	
PCB-1254	<0.33		0.33		mg/Kg		08/06/21 16:06	08/09/21 09:37		20	
PCB-1260	<0.33		0.33		mg/Kg		08/06/21 16:06	08/09/21 09:37		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	59		49 - 129	08/06/21 16:06		08/09/21 09:37		20
DCB Decachlorobiphenyl	90		37 - 121	08/06/21 16:06		08/09/21 09:37		20

Lab Sample ID: LCS 500-613137/2-A
Matrix: Solid
Analysis Batch: 613257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613137

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.29		mg/Kg		78	57 - 120	
PCB-1260	1.67	1.43		mg/Kg		86	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	65		49 - 129
DCB Decachlorobiphenyl	105		37 - 121

Lab Sample ID: 500-203469-5 MS
Matrix: Solid
Analysis Batch: 613257

Client Sample ID: ED-R1SL-028
Prep Type: Total/NA
Prep Batch: 613137

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<3.8	F1 F2	1.86	11.6	F1	mg/Kg	☼	623	57 - 120	
PCB-1260	<3.8	F1 F2	1.86	4.67	F1	mg/Kg	☼	252	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	72		49 - 129
DCB Decachlorobiphenyl	128	S1+	37 - 121

Lab Sample ID: 500-203469-5 MSD
Matrix: Solid
Analysis Batch: 613257

Client Sample ID: ED-R1SL-028
Prep Type: Total/NA
Prep Batch: 613137

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<3.8	F1 F2	1.85	6.43	F1 F2	mg/Kg	☼	347	57 - 120	57	30	
PCB-1260	<3.8	F1 F2	1.85	<3.7	F1 F2	mg/Kg	☼	179	61 - 125	34	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	71		49 - 129
DCB Decachlorobiphenyl	132	S1+	37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-025

Lab Sample ID: 500-203469-1

Date Collected: 08/06/21 10:10

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-025

Lab Sample ID: 500-203469-1

Date Collected: 08/06/21 10:10

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 10:08	JBj	TAL CHI

Client Sample ID: ED-R1SL-026

Lab Sample ID: 500-203469-2

Date Collected: 08/06/21 10:17

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-026

Lab Sample ID: 500-203469-2

Date Collected: 08/06/21 10:17

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 10:23	JBj	TAL CHI

Client Sample ID: ED-R1SL-027

Lab Sample ID: 500-203469-3

Date Collected: 08/06/21 10:24

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-027

Lab Sample ID: 500-203469-3

Date Collected: 08/06/21 10:24

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		200	613257	08/09/21 14:45	JBj	TAL CHI

Client Sample ID: ED-R1SL-DUP002

Lab Sample ID: 500-203469-4

Date Collected: 08/06/21 00:00

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-DUP002

Lab Sample ID: 500-203469-4

Date Collected: 08/06/21 00:00

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 10:54	JBj	TAL CHI

Client Sample ID: ED-R1SL-028

Lab Sample ID: 500-203469-5

Date Collected: 08/06/21 10:32

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-028

Lab Sample ID: 500-203469-5

Date Collected: 08/06/21 10:32

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		200	613257	08/09/21 15:01	JBj	TAL CHI

Client Sample ID: ED-R1SL-042

Lab Sample ID: 500-203469-6

Date Collected: 08/06/21 11:10

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-042

Lab Sample ID: 500-203469-6

Date Collected: 08/06/21 11:10

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		200	613257	08/09/21 15:47	JBj	TAL CHI

Client Sample ID: ED-R1SL-043

Lab Sample ID: 500-203469-7

Date Collected: 08/06/21 11:15

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-043

Lab Sample ID: 500-203469-7

Date Collected: 08/06/21 11:15

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 12:11	JBj	TAL CHI

Client Sample ID: ED-R1SL-044

Lab Sample ID: 500-203469-8

Date Collected: 08/06/21 11:19

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-044

Lab Sample ID: 500-203469-8

Date Collected: 08/06/21 11:19

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 12:27	JBj	TAL CHI

Client Sample ID: ED-R1SL-046

Lab Sample ID: 500-203469-9

Date Collected: 08/06/21 11:24

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-046

Lab Sample ID: 500-203469-9

Date Collected: 08/06/21 11:24

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 12:42	JBj	TAL CHI

Client Sample ID: ED-R1SL-048

Lab Sample ID: 500-203469-10

Date Collected: 08/06/21 11:34

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-048

Lab Sample ID: 500-203469-10

Date Collected: 08/06/21 11:34

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 12:58	JBj	TAL CHI

Client Sample ID: ED-R1SL-052

Lab Sample ID: 500-203469-11

Date Collected: 08/06/21 11:40

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-052

Lab Sample ID: 500-203469-11

Date Collected: 08/06/21 11:40

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 13:13	JBj	TAL CHI

Client Sample ID: ED-R1SL-045

Lab Sample ID: 500-203469-12

Date Collected: 08/06/21 11:57

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-045

Lab Sample ID: 500-203469-12

Date Collected: 08/06/21 11:57

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 13:28	JBj	TAL CHI

Client Sample ID: ED-R1SL-047

Lab Sample ID: 500-203469-13

Date Collected: 08/06/21 12:02

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-047

Lab Sample ID: 500-203469-13

Date Collected: 08/06/21 12:02

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 13:44	JBj	TAL CHI

Client Sample ID: ED-R1SL-051

Lab Sample ID: 500-203469-14

Date Collected: 08/06/21 12:10

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-051

Lab Sample ID: 500-203469-14

Date Collected: 08/06/21 12:10

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 13:59	JBj	TAL CHI

Client Sample ID: ED-R1SL-SW004

Lab Sample ID: 500-203469-15

Date Collected: 08/06/21 12:15

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Client Sample ID: ED-R1SL-SW004

Lab Sample ID: 500-203469-15

Date Collected: 08/06/21 12:15

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 14:15	JBj	TAL CHI

Client Sample ID: ED-R1SL-SW005

Lab Sample ID: 500-203469-16

Date Collected: 08/06/21 12:24

Matrix: Solid

Date Received: 08/06/21 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613205	08/09/21 07:18	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Client Sample ID: ED-R1SL-SW005

Lab Sample ID: 500-203469-16

Date Collected: 08/06/21 12:24

Matrix: Solid

Date Received: 08/06/21 15:55

Percent Solids: 87.8

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			613137	08/06/21 16:06	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613257	08/09/21 14:30	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203469-1

Login Number: 203469

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203469-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/16/2021 2:16:02 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Job ID: 500-203469-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-203469-2**

Comments

No additional comments.

Receipt

The samples were received on 8/6/2021 3:55 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.9° C.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following sample was outside control limits: ED-R1SL-EB02 (500-203469-17). The other surrogate was within limits and the sample is non-detect for the target analytes; therefore, re-analysis was not performed.

Method 8082A: Surrogate recovery for the following method blank (MB) was outside the upper control limit: (MB 500-614197/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Client Sample ID: ED-R1SL-EB02

Lab Sample ID: 500-203469-17

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203469-17	ED-R1SL-EB02	Water	08/06/21 13:30	08/06/21 15:55

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Client Sample ID: ED-R1SL-EB02

Lab Sample ID: 500-203469-17

Date Collected: 08/06/21 13:30

Matrix: Water

Date Received: 08/06/21 15:55

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:04	1
PCB-1221	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:04	1
PCB-1232	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:04	1
PCB-1242	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:04	1
PCB-1248	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:04	1
PCB-1254	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:04	1
PCB-1260	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		30 - 120	08/13/21 11:57	08/14/21 00:04	1
DCB Decachlorobiphenyl	171	S1+	30 - 140	08/13/21 11:57	08/14/21 00:04	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

GC Semi VOA

Prep Batch: 614197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203469-17	ED-R1SL-EB02	Total/NA	Water	3510C	
MB 500-614197/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-614197/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-614197/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 614251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203469-17	ED-R1SL-EB02	Total/NA	Water	8082A	614197
MB 500-614197/1-A	Method Blank	Total/NA	Water	8082A	614197
LCS 500-614197/4-A	Lab Control Sample	Total/NA	Water	8082A	614197
LCSD 500-614197/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	614197

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-203469-17	ED-R1SL-EB02	94	171 S1+
LCS 500-614197/4-A	Lab Control Sample	49	69
LCSD 500-614197/5-A	Lab Control Sample Dup	56	83
MB 500-614197/1-A	Method Blank	146 S1+	202 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-614197/1-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614197

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1221	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1232	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1242	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1248	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1254	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1260	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	146	S1+	30 - 120	08/13/21 11:57	08/13/21 23:15	1
DCB Decachlorobiphenyl	202	S1+	30 - 140	08/13/21 11:57	08/13/21 23:15	1

Lab Sample ID: LCS 500-614197/4-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614197

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00200	0.00143		mg/L		71	56 - 120
PCB-1260	0.00200	0.00152		mg/L		76	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	49		30 - 120
DCB Decachlorobiphenyl	69		30 - 140

Lab Sample ID: LCSD 500-614197/5-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 614197

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00200	0.00161		mg/L		80	56 - 120	12	20
PCB-1260	0.00200	0.00171		mg/L		85	53 - 137	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	56		30 - 120
DCB Decachlorobiphenyl	83		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Client Sample ID: ED-R1SL-EB02

Lab Sample ID: 500-203469-17

Date Collected: 08/06/21 13:30

Matrix: Water

Date Received: 08/06/21 15:55

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			614197	08/13/21 11:57	SB	TAL CHI
Total/NA	Analysis	8082A		1	614251	08/14/21 00:04	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203469-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203469-2

Login Number: 203469

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203513-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/10/2021 4:09:02 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Job ID: 500-203513-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203513-1

Comments

No additional comments.

Receipt

The samples were received on 8/9/2021 12:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.6° C and 4.2° C.

GC Semi VOA

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SL-016 (500-203513-23), ED-R1SL-001-1 (500-203513-39) and ED-R1SL-SW001-1 (500-203513-43).

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1232: ED-R1SL-122-1 (500-203513-32).

Method 8082A: The following sample required a dilution due to the nature of the sample matrix: ED-R1SL-001-1 (500-203513-39). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following continuing control verification (CCVIS) was outside control limits: (CCVIS 500-613441/2). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following samples was outside control limits: ED-R1SL-016 (500-203513-23), ED-R1SL-017 (500-203513-24), ED-R1SL-018 (500-203513-25), ED-R1SL-019 (500-203513-26), ED-R1SL-021 (500-203513-27), ED-R1SL-020 (500-203513-28), ED-R1SL-022 (500-203513-29), ED-R1SL-023 (500-203513-30), ED-R1SL-122-1 (500-203513-32), ED-R1SL-SW010 (500-203513-36), ED-R1SL-SW009 (500-203513-37), ED-R1SL-007-1 (500-203513-38), ED-R1SL-003-1 (500-203513-40), ED-R1SL-012-1 (500-203513-42) and (LCS 500-613386/2-A). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-016

Lab Sample ID: 500-203513-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.1		0.36		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-017

Lab Sample ID: 500-203513-24

No Detections.

Client Sample ID: ED-R1SL-018

Lab Sample ID: 500-203513-25

No Detections.

Client Sample ID: ED-R1SL-019

Lab Sample ID: 500-203513-26

No Detections.

Client Sample ID: ED-R1SL-021

Lab Sample ID: 500-203513-27

No Detections.

Client Sample ID: ED-R1SL-020

Lab Sample ID: 500-203513-28

No Detections.

Client Sample ID: ED-R1SL-022

Lab Sample ID: 500-203513-29

No Detections.

Client Sample ID: ED-R1SL-023

Lab Sample ID: 500-203513-30

No Detections.

Client Sample ID: ED-R1SL-024

Lab Sample ID: 500-203513-31

No Detections.

Client Sample ID: ED-R1SL-122-1

Lab Sample ID: 500-203513-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	1.7		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-SW008

Lab Sample ID: 500-203513-35

No Detections.

Client Sample ID: ED-R1SL-SW010

Lab Sample ID: 500-203513-36

No Detections.

Client Sample ID: ED-R1SL-SW009

Lab Sample ID: 500-203513-37

No Detections.

Client Sample ID: ED-R1SL-007-1

Lab Sample ID: 500-203513-38

No Detections.

Client Sample ID: ED-R1SL-001-1

Lab Sample ID: 500-203513-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	41		7.3		mg/Kg	400	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-003-1

Lab Sample ID: 500-203513-40

No Detections.

Client Sample ID: ED-R1SL-010-1

Lab Sample ID: 500-203513-41

No Detections.

Client Sample ID: ED-R1SL-012-1

Lab Sample ID: 500-203513-42

No Detections.

Client Sample ID: ED-R1SL-SW001-1

Lab Sample ID: 500-203513-43

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.46		0.37		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203513-23	ED-R1SL-016	Solid	08/07/21 11:55	08/09/21 12:25
500-203513-24	ED-R1SL-017	Solid	08/07/21 12:05	08/09/21 12:25
500-203513-25	ED-R1SL-018	Solid	08/07/21 12:09	08/09/21 12:25
500-203513-26	ED-R1SL-019	Solid	08/07/21 12:13	08/09/21 12:25
500-203513-27	ED-R1SL-021	Solid	08/07/21 12:18	08/09/21 12:25
500-203513-28	ED-R1SL-020	Solid	08/07/21 12:22	08/09/21 12:25
500-203513-29	ED-R1SL-022	Solid	08/07/21 12:25	08/09/21 12:25
500-203513-30	ED-R1SL-023	Solid	08/07/21 12:31	08/09/21 12:25
500-203513-31	ED-R1SL-024	Solid	08/07/21 12:35	08/09/21 12:25
500-203513-32	ED-R1SL-122-1	Solid	08/07/21 12:46	08/09/21 12:25
500-203513-35	ED-R1SL-SW008	Solid	08/07/21 13:22	08/09/21 12:25
500-203513-36	ED-R1SL-SW010	Solid	08/07/21 13:30	08/09/21 12:25
500-203513-37	ED-R1SL-SW009	Solid	08/07/21 13:25	08/09/21 12:25
500-203513-38	ED-R1SL-007-1	Solid	08/07/21 13:36	08/09/21 12:25
500-203513-39	ED-R1SL-001-1	Solid	08/07/21 13:40	08/09/21 12:25
500-203513-40	ED-R1SL-003-1	Solid	08/07/21 13:45	08/09/21 12:25
500-203513-41	ED-R1SL-010-1	Solid	08/07/21 13:50	08/09/21 12:25
500-203513-42	ED-R1SL-012-1	Solid	08/07/21 13:55	08/09/21 12:25
500-203513-43	ED-R1SL-SW001-1	Solid	08/07/21 14:04	08/09/21 12:25

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-016

Lab Sample ID: 500-203513-23

Date Collected: 08/07/21 11:55

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 09:19	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 09:19	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 09:19	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 09:19	20
PCB-1248	1.1		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 09:19	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 09:19	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 09:19	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	08/09/21 16:31	08/10/21 09:19	20
DCB Decachlorobiphenyl	95		37 - 121	08/09/21 16:31	08/10/21 09:19	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-017

Lab Sample ID: 500-203513-24

Date Collected: 08/07/21 12:05

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 89.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 09:34	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 09:34	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 09:34	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 09:34	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 09:34	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 09:34	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 09:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	08/09/21 16:31	08/10/21 09:34	20
DCB Decachlorobiphenyl	145	S1+	37 - 121	08/09/21 16:31	08/10/21 09:34	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-018

Lab Sample ID: 500-203513-25

Date Collected: 08/07/21 12:09

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 93.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 09:50	20
PCB-1221	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 09:50	20
PCB-1232	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 09:50	20
PCB-1242	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 09:50	20
PCB-1248	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 09:50	20
PCB-1254	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 09:50	20
PCB-1260	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 09:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		49 - 129	08/09/21 16:31	08/10/21 09:50	20
DCB Decachlorobiphenyl	134	S1+	37 - 121	08/09/21 16:31	08/10/21 09:50	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-019

Lab Sample ID: 500-203513-26

Date Collected: 08/07/21 12:13

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 89.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 10:05	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 10:05	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 10:05	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 10:05	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 10:05	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 10:05	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 10:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	90		49 - 129	08/09/21 16:31	08/10/21 10:05	20
DCB Decachlorobiphenyl	130	S1+	37 - 121	08/09/21 16:31	08/10/21 10:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-021

Lab Sample ID: 500-203513-27

Date Collected: 08/07/21 12:18

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:21	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:21	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:21	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:21	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:21	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:21	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:21	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	08/09/21 16:31	08/10/21 10:21	20
DCB Decachlorobiphenyl	123	S1+	37 - 121	08/09/21 16:31	08/10/21 10:21	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-020

Lab Sample ID: 500-203513-28

Date Collected: 08/07/21 12:22

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:36	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:36	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:36	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:36	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:36	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:36	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 10:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	94		49 - 129	08/09/21 16:31	08/10/21 10:36	20
DCB Decachlorobiphenyl	133	S1+	37 - 121	08/09/21 16:31	08/10/21 10:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-022

Lab Sample ID: 500-203513-29

Date Collected: 08/07/21 12:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 93.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 10:52	20
PCB-1221	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 10:52	20
PCB-1232	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 10:52	20
PCB-1242	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 10:52	20
PCB-1248	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 10:52	20
PCB-1254	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 10:52	20
PCB-1260	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 10:52	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		49 - 129	08/09/21 16:31	08/10/21 10:52	20
DCB Decachlorobiphenyl	126	S1+	37 - 121	08/09/21 16:31	08/10/21 10:52	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-023

Lab Sample ID: 500-203513-30

Date Collected: 08/07/21 12:31

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:07	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:07	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:07	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:07	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:07	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:07	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	86		49 - 129	08/09/21 16:31	08/10/21 11:07	20
DCB Decachlorobiphenyl	128	S1+	37 - 121	08/09/21 16:31	08/10/21 11:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-024

Lab Sample ID: 500-203513-31

Date Collected: 08/07/21 12:35

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 93.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:23	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:23	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:23	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:23	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:23	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:23	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:23	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	80		49 - 129	08/09/21 16:31	08/10/21 11:23	20
DCB Decachlorobiphenyl	113		37 - 121	08/09/21 16:31	08/10/21 11:23	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-122-1

Lab Sample ID: 500-203513-32

Date Collected: 08/07/21 12:46

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 86.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/09/21 16:31	08/10/21 11:38	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/09/21 16:31	08/10/21 11:38	20
PCB-1232	1.7		0.38		mg/Kg	☼	08/09/21 16:31	08/10/21 11:38	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/09/21 16:31	08/10/21 11:38	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/09/21 16:31	08/10/21 11:38	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/09/21 16:31	08/10/21 11:38	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/09/21 16:31	08/10/21 11:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	08/09/21 16:31	08/10/21 11:38	20
DCB Decachlorobiphenyl	104		37 - 121	08/09/21 16:31	08/10/21 11:38	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-SW008

Lab Sample ID: 500-203513-35

Date Collected: 08/07/21 13:22

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:53	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:53	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:53	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:53	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:53	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:53	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 11:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/09/21 16:31	08/10/21 11:53	20
DCB Decachlorobiphenyl	114		37 - 121	08/09/21 16:31	08/10/21 11:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-SW010

Lab Sample ID: 500-203513-36

Date Collected: 08/07/21 13:30

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 12:09	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 12:09	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 12:09	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 12:09	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 12:09	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 12:09	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/09/21 16:31	08/10/21 12:09	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	83		49 - 129	08/09/21 16:31	08/10/21 12:09	20
DCB Decachlorobiphenyl	132	S1+	37 - 121	08/09/21 16:31	08/10/21 12:09	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-SW009

Lab Sample ID: 500-203513-37

Date Collected: 08/07/21 13:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 93.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 12:24	20
PCB-1221	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 12:24	20
PCB-1232	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 12:24	20
PCB-1242	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 12:24	20
PCB-1248	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 12:24	20
PCB-1254	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 12:24	20
PCB-1260	<0.35		0.35		mg/Kg	☼	08/09/21 16:31	08/10/21 12:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	08/09/21 16:31	08/10/21 12:24	20
DCB Decachlorobiphenyl	132	S1+	37 - 121	08/09/21 16:31	08/10/21 12:24	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-007-1

Lab Sample ID: 500-203513-38

Date Collected: 08/07/21 13:36

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/09/21 16:31	08/10/21 12:40	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/09/21 16:31	08/10/21 12:40	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/09/21 16:31	08/10/21 12:40	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/09/21 16:31	08/10/21 12:40	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/09/21 16:31	08/10/21 12:40	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/09/21 16:31	08/10/21 12:40	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/09/21 16:31	08/10/21 12:40	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		49 - 129	08/09/21 16:31	08/10/21 12:40	20
DCB Decachlorobiphenyl	127	S1+	37 - 121	08/09/21 16:31	08/10/21 12:40	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-001-1

Lab Sample ID: 500-203513-39

Date Collected: 08/07/21 13:40

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 91.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<7.3		7.3		mg/Kg	☼	08/09/21 16:31	08/10/21 14:44	400
PCB-1221	<7.3		7.3		mg/Kg	☼	08/09/21 16:31	08/10/21 14:44	400
PCB-1232	<7.3		7.3		mg/Kg	☼	08/09/21 16:31	08/10/21 14:44	400
PCB-1242	<7.3		7.3		mg/Kg	☼	08/09/21 16:31	08/10/21 14:44	400
PCB-1248	41		7.3		mg/Kg	☼	08/09/21 16:31	08/10/21 14:44	400
PCB-1254	<7.3		7.3		mg/Kg	☼	08/09/21 16:31	08/10/21 14:44	400
PCB-1260	<7.3		7.3		mg/Kg	☼	08/09/21 16:31	08/10/21 14:44	400

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	0	D	49 - 129	08/09/21 16:31	08/10/21 14:44	400
DCB Decachlorobiphenyl	0	D	37 - 121	08/09/21 16:31	08/10/21 14:44	400

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-003-1

Lab Sample ID: 500-203513-40

Date Collected: 08/07/21 13:45

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 90.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:11	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:11	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:11	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:11	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:11	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:11	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:11	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	08/09/21 16:31	08/10/21 13:11	20
DCB Decachlorobiphenyl	130	S1+	37 - 121	08/09/21 16:31	08/10/21 13:11	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-010-1

Lab Sample ID: 500-203513-41

Date Collected: 08/07/21 13:50

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 89.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:26	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:26	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:26	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:26	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:26	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:26	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	08/09/21 16:31	08/10/21 13:26	20
DCB Decachlorobiphenyl	118		37 - 121	08/09/21 16:31	08/10/21 13:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-012-1

Lab Sample ID: 500-203513-42

Date Collected: 08/07/21 13:55

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:42	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:42	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:42	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:42	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:42	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:42	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 13:42	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		49 - 129	08/09/21 16:31	08/10/21 13:42	20
DCB Decachlorobiphenyl	125	S1+	37 - 121	08/09/21 16:31	08/10/21 13:42	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-SW001-1

Lab Sample ID: 500-203513-43

Date Collected: 08/07/21 14:04

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 14:28	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 14:28	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 14:28	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 14:28	20
PCB-1248	0.46		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 14:28	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 14:28	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/09/21 16:31	08/10/21 14:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	08/09/21 16:31	08/10/21 14:28	20
DCB Decachlorobiphenyl	103		37 - 121	08/09/21 16:31	08/10/21 14:28	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

GC Semi VOA

Prep Batch: 613386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-23	ED-R1SL-016	Total/NA	Solid	3541	
500-203513-24	ED-R1SL-017	Total/NA	Solid	3541	
500-203513-25	ED-R1SL-018	Total/NA	Solid	3541	
500-203513-26	ED-R1SL-019	Total/NA	Solid	3541	
500-203513-27	ED-R1SL-021	Total/NA	Solid	3541	
500-203513-28	ED-R1SL-020	Total/NA	Solid	3541	
500-203513-29	ED-R1SL-022	Total/NA	Solid	3541	
500-203513-30	ED-R1SL-023	Total/NA	Solid	3541	
500-203513-31	ED-R1SL-024	Total/NA	Solid	3541	
500-203513-32	ED-R1SL-122-1	Total/NA	Solid	3541	
500-203513-35	ED-R1SL-SW008	Total/NA	Solid	3541	
500-203513-36	ED-R1SL-SW010	Total/NA	Solid	3541	
500-203513-37	ED-R1SL-SW009	Total/NA	Solid	3541	
500-203513-38	ED-R1SL-007-1	Total/NA	Solid	3541	
500-203513-39	ED-R1SL-001-1	Total/NA	Solid	3541	
500-203513-40	ED-R1SL-003-1	Total/NA	Solid	3541	
500-203513-41	ED-R1SL-010-1	Total/NA	Solid	3541	
500-203513-42	ED-R1SL-012-1	Total/NA	Solid	3541	
500-203513-43	ED-R1SL-SW001-1	Total/NA	Solid	3541	
MB 500-613386/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-613386/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203513-42 MS	ED-R1SL-012-1	Total/NA	Solid	3541	
500-203513-42 MSD	ED-R1SL-012-1	Total/NA	Solid	3541	

Analysis Batch: 613441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-23	ED-R1SL-016	Total/NA	Solid	8082A	613386
500-203513-24	ED-R1SL-017	Total/NA	Solid	8082A	613386
500-203513-25	ED-R1SL-018	Total/NA	Solid	8082A	613386
500-203513-26	ED-R1SL-019	Total/NA	Solid	8082A	613386
500-203513-27	ED-R1SL-021	Total/NA	Solid	8082A	613386
500-203513-28	ED-R1SL-020	Total/NA	Solid	8082A	613386
500-203513-29	ED-R1SL-022	Total/NA	Solid	8082A	613386
500-203513-30	ED-R1SL-023	Total/NA	Solid	8082A	613386
500-203513-31	ED-R1SL-024	Total/NA	Solid	8082A	613386
500-203513-32	ED-R1SL-122-1	Total/NA	Solid	8082A	613386
500-203513-35	ED-R1SL-SW008	Total/NA	Solid	8082A	613386
500-203513-36	ED-R1SL-SW010	Total/NA	Solid	8082A	613386
500-203513-37	ED-R1SL-SW009	Total/NA	Solid	8082A	613386
500-203513-38	ED-R1SL-007-1	Total/NA	Solid	8082A	613386
500-203513-39	ED-R1SL-001-1	Total/NA	Solid	8082A	613386
500-203513-40	ED-R1SL-003-1	Total/NA	Solid	8082A	613386
500-203513-41	ED-R1SL-010-1	Total/NA	Solid	8082A	613386
500-203513-42	ED-R1SL-012-1	Total/NA	Solid	8082A	613386
500-203513-43	ED-R1SL-SW001-1	Total/NA	Solid	8082A	613386
MB 500-613386/1-A	Method Blank	Total/NA	Solid	8082A	613386
LCS 500-613386/2-A	Lab Control Sample	Total/NA	Solid	8082A	613386
500-203513-42 MS	ED-R1SL-012-1	Total/NA	Solid	8082A	613386
500-203513-42 MSD	ED-R1SL-012-1	Total/NA	Solid	8082A	613386

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

General Chemistry

Analysis Batch: 613427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-23	ED-R1SL-016	Total/NA	Solid	Moisture	
500-203513-24	ED-R1SL-017	Total/NA	Solid	Moisture	
500-203513-25	ED-R1SL-018	Total/NA	Solid	Moisture	
500-203513-26	ED-R1SL-019	Total/NA	Solid	Moisture	
500-203513-27	ED-R1SL-021	Total/NA	Solid	Moisture	
500-203513-28	ED-R1SL-020	Total/NA	Solid	Moisture	
500-203513-29	ED-R1SL-022	Total/NA	Solid	Moisture	
500-203513-30	ED-R1SL-023	Total/NA	Solid	Moisture	
500-203513-31	ED-R1SL-024	Total/NA	Solid	Moisture	
500-203513-32	ED-R1SL-122-1	Total/NA	Solid	Moisture	
500-203513-35	ED-R1SL-SW008	Total/NA	Solid	Moisture	
500-203513-36	ED-R1SL-SW010	Total/NA	Solid	Moisture	
500-203513-37	ED-R1SL-SW009	Total/NA	Solid	Moisture	
500-203513-38	ED-R1SL-007-1	Total/NA	Solid	Moisture	
500-203513-39	ED-R1SL-001-1	Total/NA	Solid	Moisture	
500-203513-40	ED-R1SL-003-1	Total/NA	Solid	Moisture	

Analysis Batch: 613442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-41	ED-R1SL-010-1	Total/NA	Solid	Moisture	
500-203513-42	ED-R1SL-012-1	Total/NA	Solid	Moisture	
500-203513-43	ED-R1SL-SW001-1	Total/NA	Solid	Moisture	
500-203513-41 DU	ED-R1SL-010-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TCX1 (49-129)	TCX2 (49-129)	DCBP1 (37-121)	DCBP2 (37-121)
500-203513-23	ED-R1SL-016		72		95
500-203513-24	ED-R1SL-017	89		145 S1+	
500-203513-25	ED-R1SL-018	88		134 S1+	
500-203513-26	ED-R1SL-019	90		130 S1+	
500-203513-27	ED-R1SL-021	83		123 S1+	
500-203513-28	ED-R1SL-020	94		133 S1+	
500-203513-29	ED-R1SL-022	85		126 S1+	
500-203513-30	ED-R1SL-023	86		128 S1+	
500-203513-31	ED-R1SL-024	80		113	
500-203513-32	ED-R1SL-122-1		68		104
500-203513-35	ED-R1SL-SW008	77		114	
500-203513-36	ED-R1SL-SW010	83		132 S1+	
500-203513-37	ED-R1SL-SW009	89		132 S1+	
500-203513-38	ED-R1SL-007-1	82		127 S1+	
500-203513-39	ED-R1SL-001-1	0 D		0 D	
500-203513-40	ED-R1SL-003-1	81		130 S1+	
500-203513-41	ED-R1SL-010-1	71		118	
500-203513-42	ED-R1SL-012-1	78		125 S1+	
500-203513-42 MS	ED-R1SL-012-1	74		114	
500-203513-42 MSD	ED-R1SL-012-1	71		111	
500-203513-43	ED-R1SL-SW001-1		74		103
LCS 500-613386/2-A	Lab Control Sample	88	74	137 S1+	90
MB 500-613386/1-A	Method Blank	87	67	117	90

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-613386/1-A
Matrix: Solid
Analysis Batch: 613441

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613386

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1016	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1221	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1221	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1232	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1232	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1242	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1242	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1248	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1248	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1254	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1254	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1260	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20
PCB-1260	<0.33		0.33		mg/Kg		08/09/21 16:31	08/10/21 08:48	20

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	87		49 - 129	08/09/21 16:31	08/10/21 08:48	20
Tetrachloro-m-xylene	67		49 - 129	08/09/21 16:31	08/10/21 08:48	20
DCB Decachlorobiphenyl	117		37 - 121	08/09/21 16:31	08/10/21 08:48	20
DCB Decachlorobiphenyl	90		37 - 121	08/09/21 16:31	08/10/21 08:48	20

Lab Sample ID: LCS 500-613386/2-A
Matrix: Solid
Analysis Batch: 613441

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613386

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.55		mg/Kg		93	57 - 120
PCB-1016	1.67	1.31		mg/Kg		78	57 - 120
PCB-1260	1.67	1.76		mg/Kg		106	61 - 125
PCB-1260	1.67	1.46		mg/Kg		88	61 - 125

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	88		49 - 129
Tetrachloro-m-xylene	74		49 - 129
DCB Decachlorobiphenyl	137	S1+	37 - 121
DCB Decachlorobiphenyl	90		37 - 121

Lab Sample ID: 500-203513-42 MS
Matrix: Solid
Analysis Batch: 613441

Client Sample ID: ED-R1SL-012-1
Prep Type: Total/NA
Prep Batch: 613386

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
PCB-1016	<0.37		1.88	1.53		mg/Kg	☼	81	57 - 120
PCB-1260	<0.37		1.88	1.71		mg/Kg	☼	91	61 - 125

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	74		49 - 129

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 500-203513-42 MS
Matrix: Solid
Analysis Batch: 613441

Client Sample ID: ED-R1SL-012-1
Prep Type: Total/NA
Prep Batch: 613386

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
<i>DCB Decachlorobiphenyl</i>	114		37 - 121

Lab Sample ID: 500-203513-42 MSD
Matrix: Solid
Analysis Batch: 613441

Client Sample ID: ED-R1SL-012-1
Prep Type: Total/NA
Prep Batch: 613386

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
PCB-1016	<0.37		1.87	1.52		mg/Kg	⊛	81	57 - 120	0	30
PCB-1260	<0.37		1.87	1.64		mg/Kg	⊛	88	61 - 125	4	30

<i>Surrogate</i>	<i>MSD</i> <i>%Recovery</i>	<i>MSD</i> <i>Qualifier</i>	<i>Limits</i>
<i>Tetrachloro-m-xylene</i>	71		49 - 129
<i>DCB Decachlorobiphenyl</i>	111		37 - 121



Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-016

Lab Sample ID: 500-203513-23

Date Collected: 08/07/21 11:55

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-016

Lab Sample ID: 500-203513-23

Date Collected: 08/07/21 11:55

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 09:19	JB	TAL CHI

Client Sample ID: ED-R1SL-017

Lab Sample ID: 500-203513-24

Date Collected: 08/07/21 12:05

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-017

Lab Sample ID: 500-203513-24

Date Collected: 08/07/21 12:05

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 09:34	JB	TAL CHI

Client Sample ID: ED-R1SL-018

Lab Sample ID: 500-203513-25

Date Collected: 08/07/21 12:09

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-018

Lab Sample ID: 500-203513-25

Date Collected: 08/07/21 12:09

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 93.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 09:50	JB	TAL CHI

Client Sample ID: ED-R1SL-019

Lab Sample ID: 500-203513-26

Date Collected: 08/07/21 12:13

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-019

Lab Sample ID: 500-203513-26

Date Collected: 08/07/21 12:13

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 10:05	JBj	TAL CHI

Client Sample ID: ED-R1SL-021

Lab Sample ID: 500-203513-27

Date Collected: 08/07/21 12:18

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-021

Lab Sample ID: 500-203513-27

Date Collected: 08/07/21 12:18

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 10:21	JBj	TAL CHI

Client Sample ID: ED-R1SL-020

Lab Sample ID: 500-203513-28

Date Collected: 08/07/21 12:22

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-020

Lab Sample ID: 500-203513-28

Date Collected: 08/07/21 12:22

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 10:36	JBj	TAL CHI

Client Sample ID: ED-R1SL-022

Lab Sample ID: 500-203513-29

Date Collected: 08/07/21 12:25

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-022

Lab Sample ID: 500-203513-29

Date Collected: 08/07/21 12:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 93.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 10:52	JBj	TAL CHI

Client Sample ID: ED-R1SL-023

Lab Sample ID: 500-203513-30

Date Collected: 08/07/21 12:31

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-023

Lab Sample ID: 500-203513-30

Date Collected: 08/07/21 12:31

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 11:07	JBj	TAL CHI

Client Sample ID: ED-R1SL-024

Lab Sample ID: 500-203513-31

Date Collected: 08/07/21 12:35

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-024

Lab Sample ID: 500-203513-31

Date Collected: 08/07/21 12:35

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 11:23	JBj	TAL CHI

Client Sample ID: ED-R1SL-122-1

Lab Sample ID: 500-203513-32

Date Collected: 08/07/21 12:46

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-122-1

Lab Sample ID: 500-203513-32

Date Collected: 08/07/21 12:46

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 11:38	JBj	TAL CHI

Client Sample ID: ED-R1SL-SW008

Lab Sample ID: 500-203513-35

Date Collected: 08/07/21 13:22

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-SW008

Lab Sample ID: 500-203513-35

Date Collected: 08/07/21 13:22

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 11:53	JBj	TAL CHI

Client Sample ID: ED-R1SL-SW010

Lab Sample ID: 500-203513-36

Date Collected: 08/07/21 13:30

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-SW010

Lab Sample ID: 500-203513-36

Date Collected: 08/07/21 13:30

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 12:09	JBj	TAL CHI

Client Sample ID: ED-R1SL-SW009

Lab Sample ID: 500-203513-37

Date Collected: 08/07/21 13:25

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-SW009

Lab Sample ID: 500-203513-37

Date Collected: 08/07/21 13:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 12:24	JBj	TAL CHI

Client Sample ID: ED-R1SL-007-1

Lab Sample ID: 500-203513-38

Date Collected: 08/07/21 13:36

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-007-1

Lab Sample ID: 500-203513-38

Date Collected: 08/07/21 13:36

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 12:40	JBj	TAL CHI

Client Sample ID: ED-R1SL-001-1

Lab Sample ID: 500-203513-39

Date Collected: 08/07/21 13:40

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-001-1

Lab Sample ID: 500-203513-39

Date Collected: 08/07/21 13:40

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		400	613441	08/10/21 14:44	JBj	TAL CHI

Client Sample ID: ED-R1SL-003-1

Lab Sample ID: 500-203513-40

Date Collected: 08/07/21 13:45

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-003-1

Lab Sample ID: 500-203513-40

Date Collected: 08/07/21 13:45

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 90.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 13:11	JBJ	TAL CHI

Client Sample ID: ED-R1SL-010-1

Lab Sample ID: 500-203513-41

Date Collected: 08/07/21 13:50

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Client Sample ID: ED-R1SL-010-1

Lab Sample ID: 500-203513-41

Date Collected: 08/07/21 13:50

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 13:26	JBJ	TAL CHI

Client Sample ID: ED-R1SL-012-1

Lab Sample ID: 500-203513-42

Date Collected: 08/07/21 13:55

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Client Sample ID: ED-R1SL-012-1

Lab Sample ID: 500-203513-42

Date Collected: 08/07/21 13:55

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 13:42	JBJ	TAL CHI

Client Sample ID: ED-R1SL-SW001-1

Lab Sample ID: 500-203513-43

Date Collected: 08/07/21 14:04

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Client Sample ID: ED-R1SL-SW001-1

Lab Sample ID: 500-203513-43

Date Collected: 08/07/21 14:04

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.8

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			613386	08/09/21 16:31	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613441	08/10/21 14:28	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler <i>G Welch</i>	Lab PM: Kintz, Robin M		Carrier Tracking No(s):	COC No: 500-92290-41114 1
Client Contact: Garrett Welch		Phone <i>865-440-1655</i>	E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IA</i>	Page: <i>CAW 8/9/21</i> Page 4 of 4 1 of 5
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested		Job #: <i>500-203513</i>
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers
City: Knoxville		TAT Requested (days): <i>RUSH - Same Day Turn</i>				
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required				
Email: <i>gwelch@cecinc.com</i>		WO #:				
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)		
Site: <i>Elliott Ditch - Lower Reach 1 soil/ Sediment</i>		SSOW#:				
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Preservation Code:
						N
<i>ED-RISL-049</i>		<i>8/7/21</i>	<i>0845</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-050</i>		<i>8/7/21</i>	<i>0850</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-029</i>		<i>8/7/21</i>	<i>0918</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-030</i>		<i>8/7/21</i>	<i>0924</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-032</i>		<i>8/7/21</i>	<i>0936</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-033</i>		<i>8/7/21</i>	<i>0941</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-034</i>		<i>8/7/21</i>	<i>0946</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-035</i>		<i>8/7/21</i>	<i>0950</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-031</i>		<i>8/7/21</i>	<i>0956</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-039</i>		<i>8/7/21</i>	<i>1602</i>	<i>C</i>	<i>S</i>	X
<i>ED-RISL-036</i>		<i>8/7/21</i>	<i>1612</i>	<i>C</i>	<i>S</i>	X
Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Deliverable Requested I, II, III, IV, Other (specify)				Special Instructions/QC Requirements:		
Empty Kit Relinquished by		Date:		Time:		Method of Shipment:
Relinquished by: <i>JAW</i>		Date/Time: <i>08/09/21 1124</i>		Company: <i>CEC</i>		Received by: <i>G. New</i>
Relinquished by: <i>P. New</i>		Date/Time: <i>8/9/21 1225</i>		Company: <i>ETA</i>		Received by: <i>Anna Spoto</i>
Relinquished by:		Date/Time:		Company:		Received by:
Custody Seals Intact: <input type="checkbox"/> Custody Seal No		Page 41 of 46		Cooler Temperature(s) °C and Other Remarks: <i>28 → 30, 4.4 → 4.5</i>		Date/Time: <i>8/10/2021</i>

10-9-21

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>6/4/21</i> Page <i>3 of 4</i> of <i>3 of 5</i>	
Company: Civil & Environmental Consultants Inc		Address: 2704 Cherokee Farm Way Suite 101		City: Knoxville		State, Zip: TN, 37920		Project Name: Arconic PCB Rush Project - Lafayette, IN	
Phone: 865-340-4914(Tel)		Email: <i>gwelch@cecinc.com</i>		Project #: 50019033		SSOW#:		Site: <i>Elliott Ditch - Lower Reach / soil / sediment</i>	
Due Date Requested:		TAT Requested (days): <i>RUSH - Same Day Turn</i>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PO #:		Purchase Order not required	
Analysis Requested		WO #:		Project #:		SSOW#:		Job #: <i>500-203513</i>	
Preservation Codes:		A - HCL		M - Hexane		B - NaOH		N - None	
C - Zn Acetate		O - AsNaO2		D - Nitric Acid		P - Na2O4S		Q - Na2SO3	
E - NaHSO4		R - Na2S2O3		F - MeOH		S - H2SO4		T - TSP Dodecahydrate	
G - Amchlor		U - Acetone		H - Ascorbic Acid		V - MCAA		W - pH 4-5	
I - Ice		X - EDTA		J - DI Water		L - EDA		Z - other (specify)	
Other:		Total Number of containers		Field Filtered Sample (Yes or No)		Performs (Yes or No)		8082A - PCBs	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wast/oil, BT=Bottom, A=Air)	
ED-RISL-016		8/7/21		1155		C S		X N	
ED-RISL-017		8/7/21		1205		C S		X	
ED-RISL-018		8/7/21		1209		C S		X	
ED-RISL-019		8/7/21		1213		C S		X	
ED-RISL-021		8/7/21		1218		C S		X	
ED-RISL-020		8/7/21		1222		C S		X	
ED-RISL-022		8/7/21		1225		C S		X	
ED-RISL-023		8/7/21		1231		C S		X	
ED-RISL-024		8/7/21		1235		C S		X	
ED-RISL-122-1		8/7/21		1246		C S		X	
ED-RISL-SW006		8/7/21		1310		C S		X	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab		Archive For _____ Months	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				<input type="checkbox"/>		<input checked="" type="checkbox"/>			
Deliverable Requested. I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:		Empty Kit Relinquished by:		Date:		Time:	
Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Date/Time: <i>8/9/21 1124</i>		Company: <i>EU</i>		Date/Time: <i>8/9/21 1225</i>	
Date/Time: <i>8/9/21 1225</i>		Company: <i>EU</i>		Date/Time: <i>8/9/21 1225</i>		Company: <i>EU</i>		Date/Time: <i>8/10/2021</i>	

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Eurofins TestAmerica, Chicago
 2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1			
Client Contact: Garrett Welch		Phone <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>GAW 8/9/21</i> Page 4 of 5			
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested				Job #: <i>500-203513</i>			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Performs MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers		Preservation Codes:			
City: Knoxville		TAT Requested (days): <i>RUSH - Same Day Turn</i>						A - HCL		M - Hexane	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						B - NaOH		N - None	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						C - Zn Acetate		O - AsNaO2	
Email: gwelch@cecinc.com		WO #:						D - Nitric Acid		P - Na2O4S	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		E - NaHSO4		Q - Na2SO3		R - Na2S2O3			
Site: <i>Elliott Ditch - Lower Reach 1 soil / Sediment</i>		SSOW#:		F - MeOH		S - H2SO4		T - TSP Dodecahydrate			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil)			
								BT=Tissue, A=Air			
								Preservation Code:			
								X N			
<i>ED-RISL-059</i>		<i>8/9/21</i>		<i>0925</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-060</i>		<i>8/9/21</i>		<i>0929</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-DUP004</i>		<i>8/9/21</i>		<i>/</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-061</i>		<i>8/9/21</i>		<i>0935</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-062</i>		<i>8/9/21</i>		<i>0940</i>		<i>C S</i>		<i>X X</i>			
<i>ED-RISL-063</i>		<i>8/9/21</i>		<i>0945</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-SW001</i>											
<i>ED-RISL-SW011</i>		<i>8/9/21</i>		<i>0951</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-SW012</i>		<i>8/9/21</i>		<i>0955</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-EB0304</i>		<i>8/9/21</i>		<i>1005</i>		<i>G W</i>		<i>X</i>			
								<i>GAW 8/9/21</i>			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:						
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:				
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>				
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/9/21 1225</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>				
Relinquished by:			Date/Time:		Company:		Received by:				
Custody Seals Intact: <input type="checkbox"/> Custody Seal No. _____					Cooler Temperature(s) °C and Other Remarks: <i>20-21°C</i>						

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203513-1

Login Number: 203513

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6,4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203513-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 1

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/12/2021 2:41:33 PM
Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

Designee for
Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Job ID: 500-203513-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203513-2

Comments

No additional comments.

Receipt

The samples were received on 8/9/2021 12:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.6° C and 4.2° C.

Receipt Exceptions

Sample 500-203513-16 was logged in with a sample ID of "ED-R1SL-038" when it should have been "ED-R1SL-053"

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-613681/2). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SL-049 (500-203513-1), ED-R1SL-050 (500-203513-2), ED-R1SL-030 (500-203513-4) and ED-R1SL-034 (500-203513-7).

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SL-DUP003 (500-203513-17).

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following sample was outside control limits: ED-R1SL-054 (500-203513-18). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-049

Lab Sample ID: 500-203513-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.6		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-050

Lab Sample ID: 500-203513-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.63		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-029

Lab Sample ID: 500-203513-3

No Detections.

Client Sample ID: ED-R1SL-030

Lab Sample ID: 500-203513-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.64		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-032

Lab Sample ID: 500-203513-5

No Detections.

Client Sample ID: ED-R1SL-033

Lab Sample ID: 500-203513-6

No Detections.

Client Sample ID: ED-R1SL-034

Lab Sample ID: 500-203513-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.82		0.39		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-035

Lab Sample ID: 500-203513-8

No Detections.

Client Sample ID: ED-R1SL-031

Lab Sample ID: 500-203513-9

No Detections.

Client Sample ID: ED-R1SL-039

Lab Sample ID: 500-203513-10

No Detections.

Client Sample ID: ED-R1SL-036

Lab Sample ID: 500-203513-11

No Detections.

Client Sample ID: ED-R1SL-037

Lab Sample ID: 500-203513-12

No Detections.

Client Sample ID: ED-R1SL-038

Lab Sample ID: 500-203513-13

No Detections.

Client Sample ID: ED-R1SL-040

Lab Sample ID: 500-203513-14

No Detections.

Client Sample ID: ED-R1SL-041

Lab Sample ID: 500-203513-15

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-053

Lab Sample ID: 500-203513-16

No Detections.

Client Sample ID: ED-R1SL-DUP003

Lab Sample ID: 500-203513-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.38		0.38		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-054

Lab Sample ID: 500-203513-18

No Detections.

Client Sample ID: ED-R1SL-055

Lab Sample ID: 500-203513-19

No Detections.

Client Sample ID: ED-R1SL-056

Lab Sample ID: 500-203513-20

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203513-1	ED-R1SL-049	Solid	08/07/21 08:45	08/09/21 12:25
500-203513-2	ED-R1SL-050	Solid	08/07/21 08:50	08/09/21 12:25
500-203513-3	ED-R1SL-029	Solid	08/07/21 09:18	08/09/21 12:25
500-203513-4	ED-R1SL-030	Solid	08/07/21 09:24	08/09/21 12:25
500-203513-5	ED-R1SL-032	Solid	08/07/21 09:36	08/09/21 12:25
500-203513-6	ED-R1SL-033	Solid	08/07/21 09:41	08/09/21 12:25
500-203513-7	ED-R1SL-034	Solid	08/07/21 09:46	08/09/21 12:25
500-203513-8	ED-R1SL-035	Solid	08/07/21 09:50	08/09/21 12:25
500-203513-9	ED-R1SL-031	Solid	08/07/21 09:56	08/09/21 12:25
500-203513-10	ED-R1SL-039	Solid	08/07/21 10:02	08/09/21 12:25
500-203513-11	ED-R1SL-036	Solid	08/07/21 10:12	08/09/21 12:25
500-203513-12	ED-R1SL-037	Solid	08/07/21 10:17	08/09/21 12:25
500-203513-13	ED-R1SL-038	Solid	08/07/21 10:21	08/09/21 12:25
500-203513-14	ED-R1SL-040	Solid	08/07/21 10:25	08/09/21 12:25
500-203513-15	ED-R1SL-041	Solid	08/07/21 10:29	08/09/21 12:25
500-203513-16	ED-R1SL-053	Solid	08/07/21 11:04	08/09/21 12:25
500-203513-17	ED-R1SL-DUP003	Solid	08/07/21 00:00	08/09/21 12:25
500-203513-18	ED-R1SL-054	Solid	08/07/21 11:10	08/09/21 12:25
500-203513-19	ED-R1SL-055	Solid	08/07/21 11:13	08/09/21 12:25
500-203513-20	ED-R1SL-056	Solid	08/07/21 11:20	08/09/21 12:25



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-049

Lab Sample ID: 500-203513-1

Date Collected: 08/07/21 08:45

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:05	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:05	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:05	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:05	20
PCB-1248	1.6		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:05	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:05	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	08/10/21 16:39	08/11/21 13:05	20
DCB Decachlorobiphenyl	110		37 - 121	08/10/21 16:39	08/11/21 13:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-050

Lab Sample ID: 500-203513-2

Date Collected: 08/07/21 08:50

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:20	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:20	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:20	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:20	20
PCB-1248	0.63		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:20	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:20	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 13:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	08/10/21 16:39	08/11/21 13:20	20
DCB Decachlorobiphenyl	89		37 - 121	08/10/21 16:39	08/11/21 13:20	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-029

Lab Sample ID: 500-203513-3

Date Collected: 08/07/21 09:18

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 83.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	08/10/21 16:39	08/11/21 13:36	20
PCB-1221	<0.40		0.40		mg/Kg	☼	08/10/21 16:39	08/11/21 13:36	20
PCB-1232	<0.40		0.40		mg/Kg	☼	08/10/21 16:39	08/11/21 13:36	20
PCB-1242	<0.40		0.40		mg/Kg	☼	08/10/21 16:39	08/11/21 13:36	20
PCB-1248	<0.40		0.40		mg/Kg	☼	08/10/21 16:39	08/11/21 13:36	20
PCB-1254	<0.40		0.40		mg/Kg	☼	08/10/21 16:39	08/11/21 13:36	20
PCB-1260	<0.40		0.40		mg/Kg	☼	08/10/21 16:39	08/11/21 13:36	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	08/10/21 16:39	08/11/21 13:36	20
DCB Decachlorobiphenyl	77		37 - 121	08/10/21 16:39	08/11/21 13:36	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-030

Lab Sample ID: 500-203513-4

Date Collected: 08/07/21 09:24

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 13:51	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 13:51	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 13:51	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 13:51	20
PCB-1248	0.64		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 13:51	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 13:51	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 13:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/10/21 16:39	08/11/21 13:51	20
DCB Decachlorobiphenyl	102		37 - 121	08/10/21 16:39	08/11/21 13:51	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-032

Lab Sample ID: 500-203513-5

Date Collected: 08/07/21 09:36

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:07	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:07	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:07	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:07	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:07	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:07	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:07	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	08/10/21 16:39	08/11/21 14:07	20
DCB Decachlorobiphenyl	64		37 - 121	08/10/21 16:39	08/11/21 14:07	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-033

Lab Sample ID: 500-203513-6

Date Collected: 08/07/21 09:41

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 14:22	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 14:22	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 14:22	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 14:22	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 14:22	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 14:22	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/10/21 16:39	08/11/21 14:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	08/10/21 16:39	08/11/21 14:22	20
DCB Decachlorobiphenyl	105		37 - 121	08/10/21 16:39	08/11/21 14:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-034

Lab Sample ID: 500-203513-7

Date Collected: 08/07/21 09:46

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:38	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:38	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:38	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:38	20
PCB-1248	0.82		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:38	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:38	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	08/10/21 16:39	08/11/21 14:38	20
DCB Decachlorobiphenyl	100		37 - 121	08/10/21 16:39	08/11/21 14:38	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-035

Lab Sample ID: 500-203513-8

Date Collected: 08/07/21 09:50

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:53	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:53	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:53	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:53	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:53	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:53	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/10/21 16:39	08/11/21 14:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	08/10/21 16:39	08/11/21 14:53	20
DCB Decachlorobiphenyl	92		37 - 121	08/10/21 16:39	08/11/21 14:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-031

Lab Sample ID: 500-203513-9

Date Collected: 08/07/21 09:56

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 00:49	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 00:49	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 00:49	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 00:49	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 00:49	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 00:49	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 00:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	08/11/21 17:09	08/12/21 00:49	20
DCB Decachlorobiphenyl	76		37 - 121	08/11/21 17:09	08/12/21 00:49	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-039

Lab Sample ID: 500-203513-10

Date Collected: 08/07/21 10:02

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:05	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:05	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:05	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:05	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:05	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:05	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		49 - 129	08/11/21 17:09	08/12/21 01:05	20
DCB Decachlorobiphenyl	104		37 - 121	08/11/21 17:09	08/12/21 01:05	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-036

Lab Sample ID: 500-203513-11

Date Collected: 08/07/21 10:12

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:20	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:20	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:20	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:20	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:20	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:20	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		49 - 129	08/11/21 17:09	08/12/21 01:20	20
DCB Decachlorobiphenyl	102		37 - 121	08/11/21 17:09	08/12/21 01:20	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-037

Lab Sample ID: 500-203513-12

Date Collected: 08/07/21 10:17

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:35	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:35	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:35	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:35	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:35	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:35	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:35	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		49 - 129	08/11/21 17:09	08/12/21 01:35	20
DCB Decachlorobiphenyl	92		37 - 121	08/11/21 17:09	08/12/21 01:35	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-038

Lab Sample ID: 500-203513-13

Date Collected: 08/07/21 10:21

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:51	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:51	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:51	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:51	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:51	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:51	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 01:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		49 - 129	08/11/21 17:09	08/12/21 01:51	20
DCB Decachlorobiphenyl	101		37 - 121	08/11/21 17:09	08/12/21 01:51	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-040

Lab Sample ID: 500-203513-14

Date Collected: 08/07/21 10:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 02:06	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 02:06	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 02:06	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 02:06	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 02:06	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 02:06	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 02:06	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	58		49 - 129	08/11/21 17:09	08/12/21 02:06	20
DCB Decachlorobiphenyl	70		37 - 121	08/11/21 17:09	08/12/21 02:06	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-041

Lab Sample ID: 500-203513-15

Date Collected: 08/07/21 10:29

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 83.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:22	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:22	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:22	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:22	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:22	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:22	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	08/11/21 17:09	08/12/21 02:22	20
DCB Decachlorobiphenyl	83		37 - 121	08/11/21 17:09	08/12/21 02:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-053

Lab Sample ID: 500-203513-16

Date Collected: 08/07/21 11:04

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:37	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:37	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:37	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:37	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:37	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:37	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 02:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	58		49 - 129	08/11/21 17:09	08/12/21 02:37	20
DCB Decachlorobiphenyl	76		37 - 121	08/11/21 17:09	08/12/21 02:37	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-DUP003

Lab Sample ID: 500-203513-17

Date Collected: 08/07/21 00:00

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 02:53	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 02:53	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 02:53	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 02:53	20
PCB-1248	0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 02:53	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 02:53	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 02:53	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	08/11/21 17:09	08/12/21 02:53	20
DCB Decachlorobiphenyl	89		37 - 121	08/11/21 17:09	08/12/21 02:53	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-054

Lab Sample ID: 500-203513-18

Date Collected: 08/07/21 11:10

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:08	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:08	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:08	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:08	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:08	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:08	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:08	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	48	S1-	49 - 129	08/11/21 17:09	08/12/21 03:08	20
DCB Decachlorobiphenyl	63		37 - 121	08/11/21 17:09	08/12/21 03:08	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-055

Lab Sample ID: 500-203513-19

Date Collected: 08/07/21 11:13

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:24	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:24	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:24	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:24	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:24	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:24	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:24	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	08/11/21 17:09	08/12/21 03:24	20
DCB Decachlorobiphenyl	79		37 - 121	08/11/21 17:09	08/12/21 03:24	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-056

Lab Sample ID: 500-203513-20

Date Collected: 08/07/21 11:20

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:39	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:39	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:39	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:39	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:39	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:39	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 03:39	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	08/11/21 17:09	08/12/21 03:39	20
DCB Decachlorobiphenyl	107		37 - 121	08/11/21 17:09	08/12/21 03:39	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

GC Semi VOA

Prep Batch: 613616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-1	ED-R1SL-049	Total/NA	Solid	3541	
500-203513-2	ED-R1SL-050	Total/NA	Solid	3541	
500-203513-3	ED-R1SL-029	Total/NA	Solid	3541	
500-203513-4	ED-R1SL-030	Total/NA	Solid	3541	
500-203513-5	ED-R1SL-032	Total/NA	Solid	3541	
500-203513-6	ED-R1SL-033	Total/NA	Solid	3541	
500-203513-7	ED-R1SL-034	Total/NA	Solid	3541	
500-203513-8	ED-R1SL-035	Total/NA	Solid	3541	
MB 500-613616/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-613616/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 613681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-1	ED-R1SL-049	Total/NA	Solid	8082A	613616
500-203513-2	ED-R1SL-050	Total/NA	Solid	8082A	613616
500-203513-3	ED-R1SL-029	Total/NA	Solid	8082A	613616
500-203513-4	ED-R1SL-030	Total/NA	Solid	8082A	613616
500-203513-5	ED-R1SL-032	Total/NA	Solid	8082A	613616
500-203513-6	ED-R1SL-033	Total/NA	Solid	8082A	613616
500-203513-7	ED-R1SL-034	Total/NA	Solid	8082A	613616
500-203513-8	ED-R1SL-035	Total/NA	Solid	8082A	613616
MB 500-613616/1-A	Method Blank	Total/NA	Solid	8082A	613616
LCS 500-613616/2-A	Lab Control Sample	Total/NA	Solid	8082A	613616

Prep Batch: 613828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-9	ED-R1SL-031	Total/NA	Solid	3541	
500-203513-10	ED-R1SL-039	Total/NA	Solid	3541	
500-203513-11	ED-R1SL-036	Total/NA	Solid	3541	
500-203513-12	ED-R1SL-037	Total/NA	Solid	3541	
500-203513-13	ED-R1SL-038	Total/NA	Solid	3541	
500-203513-14	ED-R1SL-040	Total/NA	Solid	3541	
500-203513-15	ED-R1SL-041	Total/NA	Solid	3541	
500-203513-16	ED-R1SL-053	Total/NA	Solid	3541	
500-203513-17	ED-R1SL-DUP003	Total/NA	Solid	3541	
500-203513-18	ED-R1SL-054	Total/NA	Solid	3541	
500-203513-19	ED-R1SL-055	Total/NA	Solid	3541	
500-203513-20	ED-R1SL-056	Total/NA	Solid	3541	
MB 500-613828/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-613828/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 613842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-9	ED-R1SL-031	Total/NA	Solid	8082A	613828
500-203513-10	ED-R1SL-039	Total/NA	Solid	8082A	613828
500-203513-11	ED-R1SL-036	Total/NA	Solid	8082A	613828
500-203513-12	ED-R1SL-037	Total/NA	Solid	8082A	613828
500-203513-13	ED-R1SL-038	Total/NA	Solid	8082A	613828
500-203513-14	ED-R1SL-040	Total/NA	Solid	8082A	613828
500-203513-15	ED-R1SL-041	Total/NA	Solid	8082A	613828
500-203513-16	ED-R1SL-053	Total/NA	Solid	8082A	613828

Eurofins TestAmerica, Chicago

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

GC Semi VOA (Continued)

Analysis Batch: 613842 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-17	ED-R1SL-DUP003	Total/NA	Solid	8082A	613828
500-203513-18	ED-R1SL-054	Total/NA	Solid	8082A	613828
500-203513-19	ED-R1SL-055	Total/NA	Solid	8082A	613828
500-203513-20	ED-R1SL-056	Total/NA	Solid	8082A	613828
MB 500-613828/1-A	Method Blank	Total/NA	Solid	8082A	613828
LCS 500-613828/2-A	Lab Control Sample	Total/NA	Solid	8082A	613828

General Chemistry

Analysis Batch: 613423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-1	ED-R1SL-049	Total/NA	Solid	Moisture	
500-203513-2	ED-R1SL-050	Total/NA	Solid	Moisture	
500-203513-3	ED-R1SL-029	Total/NA	Solid	Moisture	
500-203513-4	ED-R1SL-030	Total/NA	Solid	Moisture	
500-203513-5	ED-R1SL-032	Total/NA	Solid	Moisture	
500-203513-6	ED-R1SL-033	Total/NA	Solid	Moisture	
500-203513-7	ED-R1SL-034	Total/NA	Solid	Moisture	
500-203513-8	ED-R1SL-035	Total/NA	Solid	Moisture	
500-203513-9	ED-R1SL-031	Total/NA	Solid	Moisture	
500-203513-10	ED-R1SL-039	Total/NA	Solid	Moisture	
500-203513-11	ED-R1SL-036	Total/NA	Solid	Moisture	
500-203513-12	ED-R1SL-037	Total/NA	Solid	Moisture	
500-203513-13	ED-R1SL-038	Total/NA	Solid	Moisture	
500-203513-14	ED-R1SL-040	Total/NA	Solid	Moisture	
500-203513-15	ED-R1SL-041	Total/NA	Solid	Moisture	
500-203513-16	ED-R1SL-053	Total/NA	Solid	Moisture	
500-203513-17	ED-R1SL-DUP003	Total/NA	Solid	Moisture	
500-203513-18	ED-R1SL-054	Total/NA	Solid	Moisture	
500-203513-19	ED-R1SL-055	Total/NA	Solid	Moisture	
500-203513-20	ED-R1SL-056	Total/NA	Solid	Moisture	
500-203513-1 DU	ED-R1SL-049	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1 (49-129)	DCBP1 (37-121)
500-203513-1	ED-R1SL-049	71	110

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (49-129)	DCBP2 (37-121)
500-203513-2	ED-R1SL-050	60	89
500-203513-3	ED-R1SL-029	60	77
500-203513-4	ED-R1SL-030	77	102
500-203513-5	ED-R1SL-032	61	64
500-203513-6	ED-R1SL-033	71	105
500-203513-7	ED-R1SL-034	66	100
500-203513-8	ED-R1SL-035	72	92
500-203513-9	ED-R1SL-031	61	76
500-203513-10	ED-R1SL-039	78	104
500-203513-11	ED-R1SL-036	79	102
500-203513-12	ED-R1SL-037	69	92
500-203513-13	ED-R1SL-038	79	101
500-203513-14	ED-R1SL-040	58	70
500-203513-15	ED-R1SL-041	67	83
500-203513-16	ED-R1SL-053	58	76
500-203513-17	ED-R1SL-DUP003	68	89
500-203513-18	ED-R1SL-054	48 S1-	63
500-203513-19	ED-R1SL-055	60	79
500-203513-20	ED-R1SL-056	73	107
LCS 500-613616/2-A	Lab Control Sample	73	99
LCS 500-613828/2-A	Lab Control Sample	75	98
MB 500-613616/1-A	Method Blank	71	95
MB 500-613828/1-A	Method Blank	70	89

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-613616/1-A
Matrix: Solid
Analysis Batch: 613681

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613616

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/10/21 16:39	08/11/21 08:58	20
PCB-1221	<0.33		0.33		mg/Kg		08/10/21 16:39	08/11/21 08:58	20
PCB-1232	<0.33		0.33		mg/Kg		08/10/21 16:39	08/11/21 08:58	20
PCB-1242	<0.33		0.33		mg/Kg		08/10/21 16:39	08/11/21 08:58	20
PCB-1248	<0.33		0.33		mg/Kg		08/10/21 16:39	08/11/21 08:58	20
PCB-1254	<0.33		0.33		mg/Kg		08/10/21 16:39	08/11/21 08:58	20
PCB-1260	<0.33		0.33		mg/Kg		08/10/21 16:39	08/11/21 08:58	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	71		49 - 129	08/10/21 16:39	08/11/21 08:58	20
DCB Decachlorobiphenyl	95		37 - 121	08/10/21 16:39	08/11/21 08:58	20

Lab Sample ID: LCS 500-613616/2-A
Matrix: Solid
Analysis Batch: 613681

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613616

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.33		mg/Kg		80	57 - 120
PCB-1260	1.67	1.51		mg/Kg		90	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	73		49 - 129
DCB Decachlorobiphenyl	99		37 - 121

Lab Sample ID: MB 500-613828/1-A
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613828

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1221	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1232	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1242	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1248	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1254	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1260	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	70		49 - 129	08/11/21 17:09	08/12/21 00:18	20
DCB Decachlorobiphenyl	89		37 - 121	08/11/21 17:09	08/12/21 00:18	20

Lab Sample ID: LCS 500-613828/2-A
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613828

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.28		mg/Kg		77	57 - 120
PCB-1260	1.67	1.41		mg/Kg		85	61 - 125

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

<u>Surrogate</u>	<u>LCS</u>		<u>Limits</u>
	<u>%Recovery</u>	<u>Qualifier</u>	
<i>Tetrachloro-m-xylene</i>	75		49 - 129
<i>DCB Decachlorobiphenyl</i>	98		37 - 121

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Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-049

Date Collected: 08/07/21 08:45

Date Received: 08/09/21 12:25

Lab Sample ID: 500-203513-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-049

Date Collected: 08/07/21 08:45

Date Received: 08/09/21 12:25

Lab Sample ID: 500-203513-1

Matrix: Solid

Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613616	08/10/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613681	08/11/21 13:05	JBj	TAL CHI

Client Sample ID: ED-R1SL-050

Date Collected: 08/07/21 08:50

Date Received: 08/09/21 12:25

Lab Sample ID: 500-203513-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-050

Date Collected: 08/07/21 08:50

Date Received: 08/09/21 12:25

Lab Sample ID: 500-203513-2

Matrix: Solid

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613616	08/10/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613681	08/11/21 13:20	JBj	TAL CHI

Client Sample ID: ED-R1SL-029

Date Collected: 08/07/21 09:18

Date Received: 08/09/21 12:25

Lab Sample ID: 500-203513-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-029

Date Collected: 08/07/21 09:18

Date Received: 08/09/21 12:25

Lab Sample ID: 500-203513-3

Matrix: Solid

Percent Solids: 83.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613616	08/10/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613681	08/11/21 13:36	JBj	TAL CHI

Client Sample ID: ED-R1SL-030

Date Collected: 08/07/21 09:24

Date Received: 08/09/21 12:25

Lab Sample ID: 500-203513-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-030

Lab Sample ID: 500-203513-4

Date Collected: 08/07/21 09:24

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613616	08/10/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613681	08/11/21 13:51	JBJ	TAL CHI

Client Sample ID: ED-R1SL-032

Lab Sample ID: 500-203513-5

Date Collected: 08/07/21 09:36

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-032

Lab Sample ID: 500-203513-5

Date Collected: 08/07/21 09:36

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613616	08/10/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613681	08/11/21 14:07	JBJ	TAL CHI

Client Sample ID: ED-R1SL-033

Lab Sample ID: 500-203513-6

Date Collected: 08/07/21 09:41

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-033

Lab Sample ID: 500-203513-6

Date Collected: 08/07/21 09:41

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613616	08/10/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613681	08/11/21 14:22	JBJ	TAL CHI

Client Sample ID: ED-R1SL-034

Lab Sample ID: 500-203513-7

Date Collected: 08/07/21 09:46

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-034

Lab Sample ID: 500-203513-7

Date Collected: 08/07/21 09:46

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613616	08/10/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613681	08/11/21 14:38	JBj	TAL CHI

Client Sample ID: ED-R1SL-035

Lab Sample ID: 500-203513-8

Date Collected: 08/07/21 09:50

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-035

Lab Sample ID: 500-203513-8

Date Collected: 08/07/21 09:50

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613616	08/10/21 16:39	ACK	TAL CHI
Total/NA	Analysis	8082A		20	613681	08/11/21 14:53	JBj	TAL CHI

Client Sample ID: ED-R1SL-031

Lab Sample ID: 500-203513-9

Date Collected: 08/07/21 09:56

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-031

Lab Sample ID: 500-203513-9

Date Collected: 08/07/21 09:56

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 00:49	JBj	TAL CHI

Client Sample ID: ED-R1SL-039

Lab Sample ID: 500-203513-10

Date Collected: 08/07/21 10:02

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-039

Lab Sample ID: 500-203513-10

Date Collected: 08/07/21 10:02

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 01:05	JBj	TAL CHI

Client Sample ID: ED-R1SL-036

Lab Sample ID: 500-203513-11

Date Collected: 08/07/21 10:12

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-036

Lab Sample ID: 500-203513-11

Date Collected: 08/07/21 10:12

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 01:20	JBj	TAL CHI

Client Sample ID: ED-R1SL-037

Lab Sample ID: 500-203513-12

Date Collected: 08/07/21 10:17

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-037

Lab Sample ID: 500-203513-12

Date Collected: 08/07/21 10:17

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 01:35	JBj	TAL CHI

Client Sample ID: ED-R1SL-038

Lab Sample ID: 500-203513-13

Date Collected: 08/07/21 10:21

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-038

Lab Sample ID: 500-203513-13

Date Collected: 08/07/21 10:21

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 01:51	JBj	TAL CHI

Client Sample ID: ED-R1SL-040

Lab Sample ID: 500-203513-14

Date Collected: 08/07/21 10:25

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-040

Lab Sample ID: 500-203513-14

Date Collected: 08/07/21 10:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 02:06	JBj	TAL CHI

Client Sample ID: ED-R1SL-041

Lab Sample ID: 500-203513-15

Date Collected: 08/07/21 10:29

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-041

Lab Sample ID: 500-203513-15

Date Collected: 08/07/21 10:29

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 83.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 02:22	JBj	TAL CHI

Client Sample ID: ED-R1SL-053

Lab Sample ID: 500-203513-16

Date Collected: 08/07/21 11:04

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-053

Lab Sample ID: 500-203513-16

Date Collected: 08/07/21 11:04

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 02:37	JBj	TAL CHI

Client Sample ID: ED-R1SL-DUP003

Lab Sample ID: 500-203513-17

Date Collected: 08/07/21 00:00

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-DUP003

Lab Sample ID: 500-203513-17

Date Collected: 08/07/21 00:00

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 02:53	JBj	TAL CHI

Client Sample ID: ED-R1SL-054

Lab Sample ID: 500-203513-18

Date Collected: 08/07/21 11:10

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-054

Lab Sample ID: 500-203513-18

Date Collected: 08/07/21 11:10

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 03:08	JBj	TAL CHI

Client Sample ID: ED-R1SL-055

Lab Sample ID: 500-203513-19

Date Collected: 08/07/21 11:13

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Client Sample ID: ED-R1SL-055

Lab Sample ID: 500-203513-19

Date Collected: 08/07/21 11:13

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 03:24	JBj	TAL CHI

Client Sample ID: ED-R1SL-056

Lab Sample ID: 500-203513-20

Date Collected: 08/07/21 11:20

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613423	08/10/21 06:35	LWN	TAL CHI

Client Sample ID: ED-R1SL-056

Lab Sample ID: 500-203513-20

Date Collected: 08/07/21 11:20

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 84.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 03:39	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler: <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>6 of 8</i> 8/9/21 Page <i>4</i> of <i>5</i>	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: <i>500-203513</i>	
City: Knoxville		TAT Requested (days): <i>RUSH - Same Day Turn</i>						Preservation Codes:	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						A - HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B - NaOH N - None	
Email: gwelch@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P - Na2O4S		E - NaHSO4 Q - Na2SO3		F - MeOH R - Na2S2O3	
Site: <i>Elliott Ditch - Lower Reach 1 soil/ sediment</i>		SSOW#:		G - Amchlor S - H2SO4		H - Ascorbic Acid T - TSP Dodecahydrate		I - Ice U - Acetone	
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Special Instructions/Note:			
						Preservation Code: <input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> N			
<i>12</i> ED-RISL-037		<i>8/7/21</i>	<i>1017</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>13</i> ED-RISL-038		<i>8/7/21</i>	<i>1021</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>14</i> ED-RISL-040		<i>8/7/21</i>	<i>1025</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>15</i> ED-RISL-041		<i>8/7/21</i>	<i>1029</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>16</i> ED-RISL-053		<i>8/7/21</i>	<i>1104</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>17</i> ED-RISL-DUP003		<i>8/7/21</i>		<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>18</i> ED-RISL-054		<i>8/7/21</i>	<i>1110</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>19</i> ED-RISL-055		<i>8/7/21</i>	<i>1113</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>20</i> ED-RISL-056		<i>8/7/21</i>	<i>1120</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>21</i> ED-RISL-057		<i>8/7/21</i>	<i>1125</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X		<i>1</i>	
<i>22</i> ED-RISL-058		<i>8/7/21</i>	<i>1131</i>	<i>C</i>	<i>S</i>	<input checked="" type="checkbox"/> X <input checked="" type="checkbox"/> X		<i>3</i>	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i> Company: <i>[Signature]</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i> Company: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	

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Chain of Custody Record

• eurofins

Client Information		Sampler <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>6/4/21</i> Page 3 of 4 3 of 5	
Company: Civil & Environmental Consultants Inc		Address: 2704 Cherokee Farm Way Suite 101		City: Knoxville		State, Zip: TN, 37920		Job #: <i>500-203513</i>	
Phone: 865-340-4914(Tel)		Email: <i>gwelch@cecinc.com</i>		Project Name: Arconic PCB Rush Project - Lafayette, IN		Site: <i>Elliott Ditch - Lower Reach / soil / sediment</i>		Analysis Requested	
Due Date Requested:		TAT Requested (days): <i>RUSH - Same Day Turn</i>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PO #:		Purchase Order not required	
Project #: 50019033		SSOW#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Performs Residue (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		8082A - PCBs	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wast/oil, BT=Bottom, A=Air)	
								Preservation Code: <input checked="" type="checkbox"/> X <input type="checkbox"/> N	
<i>23 ED-RISL-016</i>		<i>8/7/21</i>		<i>1155</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>24 ED-RISL-017</i>		<i>8/7/21</i>		<i>1205</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>25 ED-RISL-018</i>		<i>8/7/21</i>		<i>1209</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>26 ED-RISL-019</i>		<i>8/7/21</i>		<i>1213</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>27 ED-RISL-021</i>		<i>8/7/21</i>		<i>1218</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>28 ED-RISL-020</i>		<i>8/7/21</i>		<i>1222</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>29 ED-RISL-022</i>		<i>8/7/21</i>		<i>1225</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>30 ED-RISL-023</i>		<i>8/7/21</i>		<i>1231</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>31 ED-RISL-024</i>		<i>8/7/21</i>		<i>1235</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>32 ED-RISL-122-1</i>		<i>8/7/21</i>		<i>1246</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
<i>33 ED-RISL-54006</i>		<i>8/7/21</i>		<i>1310</i>		<i>C S</i>		<input checked="" type="checkbox"/> X	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Deliverable Requested. I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:		Total Number of containers	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:		Special Instructions/Note:	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>	

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Chain of Custody Record

eurofins

Client Information		Sampler: <u>G. Welch</u>		Lab PM: <u>Kintz, Robin M</u>		Carrier Tracking No(a):		COC No: <u>500-92290-41114.1</u>			
Client Contact: <u>Garrett Welch</u>		Phone: <u>865-440-1655</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin: <u>IN</u>		Page: <u>640 8/1/21</u> Page# of <u>4405</u>			
Company: <u>Civil & Environmental Consultants Inc</u>				PWSID:		Analysis Requested					
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MESA/MSD (Yes or No) <input checked="" type="checkbox"/> 8082A - PCBs		Total Number of Containers <input checked="" type="checkbox"/>		Job #: <u>500-213513</u>			
City: <u>Knoxville</u>		TAT Requested (days): <u>RUSH - Same Day Turn</u>						Preservation Codes:			
State, Zip: <u>TN, 37920</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						A - HCL		M - Hexane	
Phone: <u>865-340-4914(Tel)</u>		PO #:						B - NaOH		N - None	
Email: <u>mwelch@cecinc.com</u>		Purchase Order not required						C - Zn Acetate		O - AsNaO2	
Project Name: <u>Arconic PCB Rush Project - Lafayette, IN</u>		Project #: <u>50019033</u>		D - Nitric Acid		P - Na2O4S		Q - Na2SO3			
Site: <u>Elliott Ditch - Lower Reach 1 soil/sediment</u>		SSOW#:		E - NaHSO4		R - Na2S2O3		S - H2SO4			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wast/oil, BT=Fluore, A=Air)			
								Other:			
								Special Instructions/Note:			
34 ED-RISL-SW007		8/7/21		1316		C S		X			
35 ED-RISL-SW008		8/7/21		1322		C S		X			
36 ED-RISL-SW010		8/7/21		1330		C S		X			
37 ED-RISL-SW009		8/7/21		1325		C S		X			
38 ED-RISL-007-1		8/7/21		1336		C S		X			
39 ED-RISL-001-1		8/7/21		1340		C S		X			
40 ED-RISL-003-1		8/7/21		1345		C S		X			
41 ED-RISL-010-1		8/7/21		1350		C S		X			
42 ED-RISL-012-1		8/7/21		1355		C S		X			
43 ED-RISL-SW001-1		8/7/21		1404		C S		X			
44 ED-RISL-EB02		8/7/21		1425		G W		X			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:						
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/9/21 1124</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/9/21 1124</u>			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/9/21 1225</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/9/21 1225</u>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			

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Chain of Custody Record

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Client Information		Sampler <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1			
Client Contact: Garrett Welch		Phone <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>GAW 8/9/21</i> Page 4 of 5			
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: <i>500-203513</i>	
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Performs MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers		Preservation Codes:			
City: Knoxville		TAT Requested (days): <i>RUSH - Same Day Turn</i>						A - HCL		M - Hexane	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						B - NaOH		N - None	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						C - Zn Acetate		O - AsNaO2	
Email: gwelch@cecinc.com		WO #:						D - Nitric Acid		P - Na2O4S	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		E - NaHSO4		Q - Na2SO3		R - Na2S2O3			
Site: <i>Elliott Ditch - Lower Reach 1 soil / Sediment</i>		SSOW#:		F - MeOH		S - H2SO4		T - TSP Dodecahydrate			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil)			
								BT=Tissue, A=Air			
								Preservation Code:			
<i>ED-RISL-059</i>		<i>8/9/21</i>		<i>0925</i>		<i>C</i>		<i>S</i>			
<i>ED-RISL-060</i>		<i>8/9/21</i>		<i>0929</i>		<i>C</i>		<i>S</i>			
<i>ED-RISL-DUP004</i>		<i>8/9/21</i>				<i>C</i>		<i>S</i>			
<i>ED-RISL-061</i>		<i>8/9/21</i>		<i>0935</i>		<i>C</i>		<i>S</i>			
<i>ED-RISL-062</i>		<i>8/9/21</i>		<i>0940</i>		<i>C</i>		<i>S</i>			
<i>ED-RISL-063</i>		<i>8/9/21</i>		<i>0945</i>		<i>C</i>		<i>S</i>			
<i>ED-RISL-SW001</i>											
<i>ED-RISL-SW011</i>		<i>8/9/21</i>		<i>0951</i>		<i>C</i>		<i>S</i>			
<i>ED-RISL-SW012</i>		<i>8/9/21</i>		<i>0955</i>		<i>C</i>		<i>S</i>			
<i>ED-RISL-EB0304</i>		<i>8/9/21</i>		<i>1005</i>		<i>G</i>		<i>W</i>			
								<i>GAW 8/9/21</i>			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:						
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:				
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>				
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/9/21 1225</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>				
Relinquished by:			Date/Time:		Company:		Received by:				
Custody Seals Intact: <input type="checkbox"/> Custody Seal No. _____					Cooler Temperature(s) °C and Other Remarks: <i>20-21°C</i>						

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203513-2

Login Number: 203513

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6,4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
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Tel: (708)534-5200

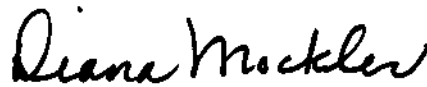
Laboratory Job ID: 500-203513-3

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

8/13/2021 8:30:31 AM

Diana Mockler, Project Manager I
(219)252-7570

Diana.Mockler@Eurofinset.com

Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Job ID: 500-203513-3

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203513-3

Comments

No additional comments.

Receipt

The samples were received on 8/9/2021 12:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.6° C and 4.2° C.

GC Semi VOA

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SL-SW007 (500-203513-34), ED-R1SL-061 (500-203513-48) and ED-R1SL-SW012 (500-203513-52).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-057

Lab Sample ID: 500-203513-21

No Detections.

Client Sample ID: ED-R1SL-058

Lab Sample ID: 500-203513-22

No Detections.

Client Sample ID: ED-R1SL-SW006

Lab Sample ID: 500-203513-33

No Detections.

Client Sample ID: ED-R1SL-SW007

Lab Sample ID: 500-203513-34

No Detections.

Client Sample ID: ED-R1SL-059

Lab Sample ID: 500-203513-45

No Detections.

Client Sample ID: ED-R1SL-060

Lab Sample ID: 500-203513-46

No Detections.

Client Sample ID: ED-R1SL-DUP004

Lab Sample ID: 500-203513-47

No Detections.

Client Sample ID: ED-R1SL-061

Lab Sample ID: 500-203513-48

No Detections.

Client Sample ID: ED-R1SL-062

Lab Sample ID: 500-203513-49

No Detections.

Client Sample ID: ED-R1SL-063

Lab Sample ID: 500-203513-50

No Detections.

Client Sample ID: ED-R1SL-SW011

Lab Sample ID: 500-203513-51

No Detections.

Client Sample ID: ED-R1SL-SW012

Lab Sample ID: 500-203513-52

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.75		0.38		mg/Kg	20	☆	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203513-21	ED-R1SL-057	Solid	08/07/21 11:25	08/09/21 12:25
500-203513-22	ED-R1SL-058	Solid	08/07/21 11:31	08/09/21 12:25
500-203513-33	ED-R1SL-SW006	Solid	08/07/21 13:10	08/09/21 12:25
500-203513-34	ED-R1SL-SW007	Solid	08/07/21 13:16	08/09/21 12:25
500-203513-45	ED-R1SL-059	Solid	08/09/21 09:25	08/09/21 12:25
500-203513-46	ED-R1SL-060	Solid	08/09/21 09:29	08/09/21 12:25
500-203513-47	ED-R1SL-DUP004	Solid	08/09/21 00:00	08/09/21 12:25
500-203513-48	ED-R1SL-061	Solid	08/09/21 09:35	08/09/21 12:25
500-203513-49	ED-R1SL-062	Solid	08/09/21 09:40	08/09/21 12:25
500-203513-50	ED-R1SL-063	Solid	08/09/21 09:45	08/09/21 12:25
500-203513-51	ED-R1SL-SW011	Solid	08/09/21 09:51	08/09/21 12:25
500-203513-52	ED-R1SL-SW012	Solid	08/09/21 09:55	08/09/21 12:25

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-057

Lab Sample ID: 500-203513-21

Date Collected: 08/07/21 11:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 03:54	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 03:54	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 03:54	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 03:54	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 03:54	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 03:54	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/11/21 17:09	08/12/21 03:54	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	08/11/21 17:09	08/12/21 03:54	20
DCB Decachlorobiphenyl	99		37 - 121	08/11/21 17:09	08/12/21 03:54	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-058

Lab Sample ID: 500-203513-22

Date Collected: 08/07/21 11:31

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 04:10	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 04:10	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 04:10	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 04:10	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 04:10	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 04:10	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/11/21 17:09	08/12/21 04:10	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	57		49 - 129	08/11/21 17:09	08/12/21 04:10	20
DCB Decachlorobiphenyl	74		37 - 121	08/11/21 17:09	08/12/21 04:10	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-SW006

Lab Sample ID: 500-203513-33

Date Collected: 08/07/21 13:10

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 17:47	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 17:47	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 17:47	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 17:47	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 17:47	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 17:47	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 17:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	08/12/21 06:44	08/12/21 17:47	20
DCB Decachlorobiphenyl	98		37 - 121	08/12/21 06:44	08/12/21 17:47	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-SW007

Lab Sample ID: 500-203513-34

Date Collected: 08/07/21 13:16

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 86.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 18:03	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 18:03	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 18:03	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 18:03	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 18:03	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 18:03	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 18:03	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	08/12/21 06:44	08/12/21 18:03	20
DCB Decachlorobiphenyl	92		37 - 121	08/12/21 06:44	08/12/21 18:03	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-059

Lab Sample ID: 500-203513-45

Date Collected: 08/09/21 09:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:18	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:18	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:18	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:18	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:18	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:18	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		49 - 129	08/12/21 06:44	08/12/21 18:18	20
DCB Decachlorobiphenyl	99		37 - 121	08/12/21 06:44	08/12/21 18:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-060

Lab Sample ID: 500-203513-46

Date Collected: 08/09/21 09:29

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 18:34	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 18:34	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 18:34	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 18:34	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 18:34	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 18:34	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 18:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	84		49 - 129	08/12/21 06:44	08/12/21 18:34	20
DCB Decachlorobiphenyl	113		37 - 121	08/12/21 06:44	08/12/21 18:34	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-DUP004

Lab Sample ID: 500-203513-47

Date Collected: 08/09/21 00:00

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:49	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:49	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:49	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:49	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:49	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:49	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/12/21 06:44	08/12/21 18:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	08/12/21 06:44	08/12/21 18:49	20
DCB Decachlorobiphenyl	93		37 - 121	08/12/21 06:44	08/12/21 18:49	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-061

Lab Sample ID: 500-203513-48

Date Collected: 08/09/21 09:35

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 86.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:05	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:05	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:05	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:05	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:05	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:05	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:05	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	08/12/21 06:44	08/12/21 19:05	20
DCB Decachlorobiphenyl	100		37 - 121	08/12/21 06:44	08/12/21 19:05	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-062

Lab Sample ID: 500-203513-49

Date Collected: 08/09/21 09:40

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:20	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:20	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:20	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:20	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:20	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:20	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 19:20	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	08/12/21 06:44	08/12/21 19:20	20
DCB Decachlorobiphenyl	96		37 - 121	08/12/21 06:44	08/12/21 19:20	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-063

Lab Sample ID: 500-203513-50

Date Collected: 08/09/21 09:45

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 20:06	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 20:06	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 20:06	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 20:06	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 20:06	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 20:06	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 20:06	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		49 - 129	08/12/21 06:44	08/12/21 20:06	20
DCB Decachlorobiphenyl	103		37 - 121	08/12/21 06:44	08/12/21 20:06	20



Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-SW011

Lab Sample ID: 500-203513-51

Date Collected: 08/09/21 09:51

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:22	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:22	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:22	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:22	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:22	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:22	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:22	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		49 - 129	08/12/21 06:44	08/12/21 20:22	20
DCB Decachlorobiphenyl	91		37 - 121	08/12/21 06:44	08/12/21 20:22	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-SW012

Lab Sample ID: 500-203513-52

Date Collected: 08/09/21 09:55

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:37	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:37	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:37	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:37	20
PCB-1248	0.75		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:37	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:37	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 20:37	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	08/12/21 06:44	08/12/21 20:37	20
DCB Decachlorobiphenyl	105		37 - 121	08/12/21 06:44	08/12/21 20:37	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

GC Semi VOA

Prep Batch: 613828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-21	ED-R1SL-057	Total/NA	Solid	3541	
500-203513-22	ED-R1SL-058	Total/NA	Solid	3541	
MB 500-613828/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-613828/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203513-22 MS	ED-R1SL-058	Total/NA	Solid	3541	
500-203513-22 MSD	ED-R1SL-058	Total/NA	Solid	3541	

Analysis Batch: 613842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-21	ED-R1SL-057	Total/NA	Solid	8082A	613828
500-203513-22	ED-R1SL-058	Total/NA	Solid	8082A	613828
MB 500-613828/1-A	Method Blank	Total/NA	Solid	8082A	613828
LCS 500-613828/2-A	Lab Control Sample	Total/NA	Solid	8082A	613828
500-203513-22 MS	ED-R1SL-058	Total/NA	Solid	8082A	613828
500-203513-22 MSD	ED-R1SL-058	Total/NA	Solid	8082A	613828

Prep Batch: 613862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-33	ED-R1SL-SW006	Total/NA	Solid	3541	
500-203513-34	ED-R1SL-SW007	Total/NA	Solid	3541	
500-203513-45	ED-R1SL-059	Total/NA	Solid	3541	
500-203513-46	ED-R1SL-060	Total/NA	Solid	3541	
500-203513-47	ED-R1SL-DUP004	Total/NA	Solid	3541	
500-203513-48	ED-R1SL-061	Total/NA	Solid	3541	
500-203513-49	ED-R1SL-062	Total/NA	Solid	3541	
500-203513-50	ED-R1SL-063	Total/NA	Solid	3541	
500-203513-51	ED-R1SL-SW011	Total/NA	Solid	3541	
500-203513-52	ED-R1SL-SW012	Total/NA	Solid	3541	
MB 500-613862/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-613862/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203513-49 MS	ED-R1SL-062	Total/NA	Solid	3541	
500-203513-49 MSD	ED-R1SL-062	Total/NA	Solid	3541	

Analysis Batch: 614012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-33	ED-R1SL-SW006	Total/NA	Solid	8082A	613862
500-203513-34	ED-R1SL-SW007	Total/NA	Solid	8082A	613862
500-203513-45	ED-R1SL-059	Total/NA	Solid	8082A	613862
500-203513-46	ED-R1SL-060	Total/NA	Solid	8082A	613862
500-203513-47	ED-R1SL-DUP004	Total/NA	Solid	8082A	613862
500-203513-48	ED-R1SL-061	Total/NA	Solid	8082A	613862
500-203513-49	ED-R1SL-062	Total/NA	Solid	8082A	613862
500-203513-50	ED-R1SL-063	Total/NA	Solid	8082A	613862
500-203513-51	ED-R1SL-SW011	Total/NA	Solid	8082A	613862
500-203513-52	ED-R1SL-SW012	Total/NA	Solid	8082A	613862
MB 500-613862/1-A	Method Blank	Total/NA	Solid	8082A	613862
LCS 500-613862/2-A	Lab Control Sample	Total/NA	Solid	8082A	613862
500-203513-49 MS	ED-R1SL-062	Total/NA	Solid	8082A	613862
500-203513-49 MSD	ED-R1SL-062	Total/NA	Solid	8082A	613862

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

General Chemistry

Analysis Batch: 613427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-21	ED-R1SL-057	Total/NA	Solid	Moisture	
500-203513-22	ED-R1SL-058	Total/NA	Solid	Moisture	
500-203513-33	ED-R1SL-SW006	Total/NA	Solid	Moisture	
500-203513-34	ED-R1SL-SW007	Total/NA	Solid	Moisture	
500-203513-21 DU	ED-R1SL-057	Total/NA	Solid	Moisture	

Analysis Batch: 613442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-45	ED-R1SL-059	Total/NA	Solid	Moisture	
500-203513-46	ED-R1SL-060	Total/NA	Solid	Moisture	
500-203513-47	ED-R1SL-DUP004	Total/NA	Solid	Moisture	
500-203513-48	ED-R1SL-061	Total/NA	Solid	Moisture	
500-203513-49	ED-R1SL-062	Total/NA	Solid	Moisture	
500-203513-50	ED-R1SL-063	Total/NA	Solid	Moisture	
500-203513-51	ED-R1SL-SW011	Total/NA	Solid	Moisture	
500-203513-52	ED-R1SL-SW012	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203513-21	ED-R1SL-057	75	99
500-203513-22	ED-R1SL-058	57	74
500-203513-22 MS	ED-R1SL-058	62	84
500-203513-22 MSD	ED-R1SL-058	82	100
500-203513-33	ED-R1SL-SW006	70	98
500-203513-34	ED-R1SL-SW007	61	92
500-203513-45	ED-R1SL-059	75	99
500-203513-46	ED-R1SL-060	84	113
500-203513-47	ED-R1SL-DUP004	70	93
500-203513-48	ED-R1SL-061	74	100
500-203513-49	ED-R1SL-062	73	96
500-203513-49 MS	ED-R1SL-062	68	107
500-203513-49 MSD	ED-R1SL-062	78	116
500-203513-50	ED-R1SL-063	72	103
500-203513-51	ED-R1SL-SW011	62	91
500-203513-52	ED-R1SL-SW012	76	105
LCS 500-613828/2-A	Lab Control Sample	75	98
LCS 500-613862/2-A	Lab Control Sample	83	109
MB 500-613828/1-A	Method Blank	70	89
MB 500-613862/1-A	Method Blank	72	90

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-613828/1-A
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613828

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1221	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1232	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1242	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1248	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1254	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1260	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	70		49 - 129	08/11/21 17:09	08/12/21 00:18	20
DCB Decachlorobiphenyl	89		37 - 121	08/11/21 17:09	08/12/21 00:18	20

Lab Sample ID: LCS 500-613828/2-A
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613828

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.28		mg/Kg		77	57 - 120
PCB-1260	1.67	1.41		mg/Kg		85	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	75		49 - 129
DCB Decachlorobiphenyl	98		37 - 121

Lab Sample ID: 500-203513-22 MS
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: ED-R1SL-058
Prep Type: Total/NA
Prep Batch: 613828

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.39		1.90	1.31		mg/Kg	☼	69	57 - 120
PCB-1260	<0.39		1.90	1.41		mg/Kg	☼	74	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	62		49 - 129
DCB Decachlorobiphenyl	84		37 - 121

Lab Sample ID: 500-203513-22 MSD
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: ED-R1SL-058
Prep Type: Total/NA
Prep Batch: 613828

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.39		1.96	1.71		mg/Kg	☼	87	57 - 120	27	30
PCB-1260	<0.39		1.96	1.80		mg/Kg	☼	92	61 - 125	24	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	82		49 - 129
DCB Decachlorobiphenyl	100		37 - 121

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 500-613862/1-A
Matrix: Solid
Analysis Batch: 614012

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613862

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1221	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1232	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1242	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1248	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1254	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1260	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	72		49 - 129	08/12/21 06:44	08/12/21 15:44	20
DCB Decachlorobiphenyl	90		37 - 121	08/12/21 06:44	08/12/21 15:44	20

Lab Sample ID: LCS 500-613862/2-A
Matrix: Solid
Analysis Batch: 614012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613862

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.42		mg/Kg		85	57 - 120
PCB-1260	1.67	1.61		mg/Kg		96	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	83		49 - 129
DCB Decachlorobiphenyl	109		37 - 121

Lab Sample ID: 500-203513-49 MS
Matrix: Solid
Analysis Batch: 614012

Client Sample ID: ED-R1SL-062
Prep Type: Total/NA
Prep Batch: 613862

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.37		1.84	1.59		mg/Kg	☼	86	57 - 120
PCB-1260	<0.37		1.84	1.79		mg/Kg	☼	97	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	68		49 - 129
DCB Decachlorobiphenyl	107		37 - 121

Lab Sample ID: 500-203513-49 MSD
Matrix: Solid
Analysis Batch: 614012

Client Sample ID: ED-R1SL-062
Prep Type: Total/NA
Prep Batch: 613862

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.37		1.85	1.62		mg/Kg	☼	88	57 - 120	2	30
PCB-1260	<0.37		1.85	1.86		mg/Kg	☼	101	61 - 125	4	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	78		49 - 129
DCB Decachlorobiphenyl	116		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-057

Lab Sample ID: 500-203513-21

Date Collected: 08/07/21 11:25

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-057

Lab Sample ID: 500-203513-21

Date Collected: 08/07/21 11:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 03:54	JBj	TAL CHI

Client Sample ID: ED-R1SL-058

Lab Sample ID: 500-203513-22

Date Collected: 08/07/21 11:31

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-058

Lab Sample ID: 500-203513-22

Date Collected: 08/07/21 11:31

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 04:10	JBj	TAL CHI

Client Sample ID: ED-R1SL-SW006

Lab Sample ID: 500-203513-33

Date Collected: 08/07/21 13:10

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Client Sample ID: ED-R1SL-SW006

Lab Sample ID: 500-203513-33

Date Collected: 08/07/21 13:10

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 17:47	SS	TAL CHI

Client Sample ID: ED-R1SL-SW007

Lab Sample ID: 500-203513-34

Date Collected: 08/07/21 13:16

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613427	08/10/21 06:56	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-SW007

Lab Sample ID: 500-203513-34

Date Collected: 08/07/21 13:16

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 18:03	SS	TAL CHI

Client Sample ID: ED-R1SL-059

Lab Sample ID: 500-203513-45

Date Collected: 08/09/21 09:25

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Client Sample ID: ED-R1SL-059

Lab Sample ID: 500-203513-45

Date Collected: 08/09/21 09:25

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 18:18	SS	TAL CHI

Client Sample ID: ED-R1SL-060

Lab Sample ID: 500-203513-46

Date Collected: 08/09/21 09:29

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Client Sample ID: ED-R1SL-060

Lab Sample ID: 500-203513-46

Date Collected: 08/09/21 09:29

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 18:34	SS	TAL CHI

Client Sample ID: ED-R1SL-DUP004

Lab Sample ID: 500-203513-47

Date Collected: 08/09/21 00:00

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-DUP004

Lab Sample ID: 500-203513-47

Date Collected: 08/09/21 00:00

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 18:49	SS	TAL CHI

Client Sample ID: ED-R1SL-061

Lab Sample ID: 500-203513-48

Date Collected: 08/09/21 09:35

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Client Sample ID: ED-R1SL-061

Lab Sample ID: 500-203513-48

Date Collected: 08/09/21 09:35

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 19:05	SS	TAL CHI

Client Sample ID: ED-R1SL-062

Lab Sample ID: 500-203513-49

Date Collected: 08/09/21 09:40

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Client Sample ID: ED-R1SL-062

Lab Sample ID: 500-203513-49

Date Collected: 08/09/21 09:40

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 19:20	SS	TAL CHI

Client Sample ID: ED-R1SL-063

Lab Sample ID: 500-203513-50

Date Collected: 08/09/21 09:45

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Client Sample ID: ED-R1SL-063

Lab Sample ID: 500-203513-50

Date Collected: 08/09/21 09:45

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 20:06	SS	TAL CHI

Client Sample ID: ED-R1SL-SW011

Lab Sample ID: 500-203513-51

Date Collected: 08/09/21 09:51

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Client Sample ID: ED-R1SL-SW011

Lab Sample ID: 500-203513-51

Date Collected: 08/09/21 09:51

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 20:22	SS	TAL CHI

Client Sample ID: ED-R1SL-SW012

Lab Sample ID: 500-203513-52

Date Collected: 08/09/21 09:55

Matrix: Solid

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613442	08/10/21 07:47	LWN	TAL CHI

Client Sample ID: ED-R1SL-SW012

Lab Sample ID: 500-203513-52

Date Collected: 08/09/21 09:55

Matrix: Solid

Date Received: 08/09/21 12:25

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 20:37	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-3

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler: <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>6 of 8</i> 8/9/21 Page <i>4</i> of <i>5</i>	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: <i>500-203513</i>	
City: Knoxville		TAT Requested (days): <i>RUSH - Same Day Turn</i>						Preservation Codes:	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						A - HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B - NaOH N - None	
Email: gwelch@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P - Na2O4S		E - NaHSO4 Q - Na2SO3		F - MeOH R - Na2S2O3	
Site: <i>Elliott Ditch - Lower Reach 1 soil/ sediment</i>		SSOW#:		G - Amchlor S - H2SO4		H - Ascorbic Acid T - TSP Dodecahydrate		I - Ice U - Acetone	
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code: <i>CAW</i>		Special Instructions/Note:	
<i>ED-RISL-037</i>		<i>8/7/21</i>	<i>1017</i>	<i>C</i>	<i>S</i>	<i>X</i>	<i>X</i>	<i>1</i>	
<i>ED-RISL-038</i>		<i>8/7/21</i>	<i>1021</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-040</i>		<i>8/7/21</i>	<i>1025</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-041</i>		<i>8/7/21</i>	<i>1029</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-053</i>		<i>8/7/21</i>	<i>1104</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-DUP003</i>		<i>8/7/21</i>		<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-054</i>		<i>8/7/21</i>	<i>1110</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-055</i>		<i>8/7/21</i>	<i>1113</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-056</i>		<i>8/7/21</i>	<i>1120</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-057</i>		<i>8/7/21</i>	<i>1125</i>	<i>C</i>	<i>S</i>	<i>X</i>		<i>1</i>	
<i>ED-RISL-058</i>		<i>8/7/21</i>	<i>1131</i>	<i>C</i>	<i>S</i>	<i>X</i>	<i>X</i>	<i>3</i>	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i> Company: <i>[Signature]</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i> Company: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time: Company: <i>8/13/2021</i>	

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>6/4/21</i> Page 3 of 4 3 of 5	
Company: Civil & Environmental Consultants Inc		Address: 2704 Cherokee Farm Way Suite 101		City: Knoxville		State, Zip: TN, 37920		Job #: <i>500-203513</i>	
Phone: 865-340-4914(Tel)		Email: <i>gwelch@cecinc.com</i>		Project Name: Arconic PCB Rush Project - Lafayette, IN		Site: <i>Elliott Ditch - Lower Reach / soil / sediment</i>		Analysis Requested	
Due Date Requested:		TAT Requested (days): <i>RUSH - Same Day Turn</i>		Compliance Project: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		PO #: Purchase Order not required		Preservation Codes:	
Project #: 50019033		SSOW#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Performs Residuals (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		8082A - PCBs	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wast/oil, BT=Bottom, A=Air)	
						Preservation Code:		Total Number of containers	
								Special Instructions/Note:	
<i>23 ED-RISL-016</i>		<i>8/7/21</i>		<i>1155</i>		<i>C S</i>		<i>X</i>	
<i>24 ED-RISL-017</i>		<i>8/7/21</i>		<i>1205</i>		<i>C S</i>		<i>X</i>	
<i>25 ED-RISL-018</i>		<i>8/7/21</i>		<i>1209</i>		<i>C S</i>		<i>X</i>	
<i>26 ED-RISL-019</i>		<i>8/7/21</i>		<i>1213</i>		<i>C S</i>		<i>X</i>	
<i>27 ED-RISL-021</i>		<i>8/7/21</i>		<i>1218</i>		<i>C S</i>		<i>X</i>	
<i>28 ED-RISL-020</i>		<i>8/7/21</i>		<i>1222</i>		<i>C S</i>		<i>X</i>	
<i>29 ED-RISL-022</i>		<i>8/7/21</i>		<i>1225</i>		<i>C S</i>		<i>X</i>	
<i>30 ED-RISL-023</i>		<i>8/7/21</i>		<i>1231</i>		<i>C S</i>		<i>X</i>	
<i>31 ED-RISL-024</i>		<i>8/7/21</i>		<i>1235</i>		<i>C S</i>		<i>X</i>	
<i>32 ED-RISL-122-1</i>		<i>8/7/21</i>		<i>1246</i>		<i>C S</i>		<i>X</i>	
<i>33 ED-RISL-SW006</i>		<i>8/7/21</i>		<i>1310</i>		<i>C S</i>		<i>X</i>	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested. I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:		
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>		Company: <i>EV</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203513-3

Login Number: 203513

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6,4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

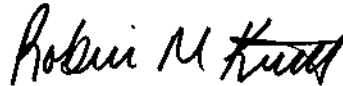
Laboratory Job ID: 500-203513-4

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/16/2021 2:29:37 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Job ID: 500-203513-4

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-203513-4**

Comments

No additional comments.

Receipt

The samples were received on 8/9/2021 12:25 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.6° C and 4.2° C.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following sample was outside control limits: ED-R1SL-EB04 (500-203513-53). The other surrogate was within limits and the sample is non-detect for the target analytes; therefore, re-analysis was not performed.

Method 8082A: Surrogate recovery for the following method blank (MB) was outside the upper control limit: (MB 500-614197/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Client Sample ID: ED-R1SL-EB03

Lab Sample ID: 500-203513-44

No Detections.

Client Sample ID: ED-R1SL-EB04

Lab Sample ID: 500-203513-53

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203513-44	ED-R1SL-EB03	Water	08/07/21 14:25	08/09/21 12:25
500-203513-53	ED-R1SL-EB04	Water	08/09/21 10:05	08/09/21 12:25

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Client Sample ID: ED-R1SL-EB03

Lab Sample ID: 500-203513-44

Date Collected: 08/07/21 14:25

Matrix: Water

Date Received: 08/09/21 12:25

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:20	1
PCB-1221	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:20	1
PCB-1232	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:20	1
PCB-1242	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:20	1
PCB-1248	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:20	1
PCB-1254	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:20	1
PCB-1260	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	116		30 - 120	08/13/21 11:57	08/14/21 00:20	1
DCB Decachlorobiphenyl	139		30 - 140	08/13/21 11:57	08/14/21 00:20	1

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Client Sample ID: ED-R1SL-EB04

Lab Sample ID: 500-203513-53

Date Collected: 08/09/21 10:05

Matrix: Water

Date Received: 08/09/21 12:25

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:36	1
PCB-1221	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:36	1
PCB-1232	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:36	1
PCB-1242	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:36	1
PCB-1248	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:36	1
PCB-1254	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:36	1
PCB-1260	<0.00040		0.00040		mg/L		08/13/21 11:57	08/14/21 00:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	108		30 - 120	08/13/21 11:57	08/14/21 00:36	1
DCB Decachlorobiphenyl	147	S1+	30 - 140	08/13/21 11:57	08/14/21 00:36	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

GC Semi VOA

Prep Batch: 614197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-44	ED-R1SL-EB03	Total/NA	Water	3510C	
500-203513-53	ED-R1SL-EB04	Total/NA	Water	3510C	
MB 500-614197/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-614197/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-614197/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 614251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203513-44	ED-R1SL-EB03	Total/NA	Water	8082A	614197
500-203513-53	ED-R1SL-EB04	Total/NA	Water	8082A	614197
MB 500-614197/1-A	Method Blank	Total/NA	Water	8082A	614197
LCS 500-614197/4-A	Lab Control Sample	Total/NA	Water	8082A	614197
LCSD 500-614197/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	614197

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-203513-44	ED-R1SL-EB03	116	139
500-203513-53	ED-R1SL-EB04	108	147 S1+
LCS 500-614197/4-A	Lab Control Sample	49	69
LCSD 500-614197/5-A	Lab Control Sample Dup	56	83
MB 500-614197/1-A	Method Blank	146 S1+	202 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-614197/1-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614197

Analyte	MB	MB	RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15			1
PCB-1221	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15			1
PCB-1232	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15			1
PCB-1242	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15			1
PCB-1248	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15			1
PCB-1254	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15			1
PCB-1260	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15			1

Surrogate	MB	MB	Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	146	S1+	30 - 120	08/13/21 11:57	08/13/21 23:15			1
DCB Decachlorobiphenyl	202	S1+	30 - 140	08/13/21 11:57	08/13/21 23:15			1

Lab Sample ID: LCS 500-614197/4-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614197

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
PCB-1016	0.00200	0.00143		mg/L		71	56 - 120	
PCB-1260	0.00200	0.00152		mg/L		76	53 - 137	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	49		30 - 120
DCB Decachlorobiphenyl	69		30 - 140

Lab Sample ID: LCSD 500-614197/5-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 614197

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec.		RPD	
		Result	Qualifier				Limits	RPD	Limit	
PCB-1016	0.00200	0.00161		mg/L		80	56 - 120	12	20	
PCB-1260	0.00200	0.00171		mg/L		85	53 - 137	12	20	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	56		30 - 120
DCB Decachlorobiphenyl	83		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Client Sample ID: ED-R1SL-EB03

Lab Sample ID: 500-203513-44

Date Collected: 08/07/21 14:25

Matrix: Water

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			614197	08/13/21 11:57	SB	TAL CHI
Total/NA	Analysis	8082A		1	614251	08/14/21 00:20	JB	TAL CHI

Client Sample ID: ED-R1SL-EB04

Lab Sample ID: 500-203513-53

Date Collected: 08/09/21 10:05

Matrix: Water

Date Received: 08/09/21 12:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			614197	08/13/21 11:57	SB	TAL CHI
Total/NA	Analysis	8082A		1	614251	08/14/21 00:36	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203513-4

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler: <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>6 of 8</i> 8/9/21 Page <i>4</i> of <i>5</i>	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of Containers		Job #: <i>500-203513</i>	
City: Knoxville		TAT Requested (days): <i>RUSH - Same Day Turn</i>						Preservation Codes:	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						A - HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B - NaOH N - None	
Email: gwelch@cecinc.com		WO #:						C - Zn Acetate O - AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D - Nitric Acid P - Na2O4S		E - NaHSO4 Q - Na2SO3		F - MeOH R - Na2S2O3	
Site: <i>Elliott Ditch - Lower Reach 1 soil/ sediment</i>		SSOW#:		G - Amchlor S - H2SO4		H - Ascorbic Acid T - TSP Dodecahydrate		I - Ice U - Acetone	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
						Preservation Code:		Other:	
						X X N		Special Instructions/Note:	
<i>12</i> ED-RISL-037		<i>8/7/21</i>		<i>1017</i>		<i>C S</i>		<i>X</i>	
<i>13</i> ED-RISL-038		<i>8/7/21</i>		<i>1021</i>		<i>C S</i>		<i>X</i>	
<i>14</i> ED-RISL-040		<i>8/7/21</i>		<i>1025</i>		<i>C S</i>		<i>X</i>	
<i>15</i> ED-RISL-041		<i>8/7/21</i>		<i>1029</i>		<i>C S</i>		<i>X</i>	
<i>16</i> ED-RISL-053		<i>8/7/21</i>		<i>1104</i>		<i>C S</i>		<i>X</i>	
<i>17</i> ED-RISL-DUP003		<i>8/7/21</i>				<i>C S</i>		<i>X</i>	
<i>18</i> ED-RISL-054		<i>8/7/21</i>		<i>1110</i>		<i>C S</i>		<i>X</i>	
<i>19</i> ED-RISL-055		<i>8/7/21</i>		<i>1113</i>		<i>C S</i>		<i>X</i>	
<i>20</i> ED-RISL-056		<i>8/7/21</i>		<i>1120</i>		<i>C S</i>		<i>X</i>	
<i>21</i> ED-RISL-057		<i>8/7/21</i>		<i>1125</i>		<i>C S</i>		<i>X</i>	
<i>22</i> ED-RISL-058		<i>8/7/21</i>		<i>1131</i>		<i>C S</i>		<i>X X</i>	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	

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Eurofins TestAmerica, Chicago

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 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>6/4/21</i> Page <i>3 of 4</i> of <i>3 of 5</i>	
Company: Civil & Environmental Consultants Inc		Address: 2704 Cherokee Farm Way Suite 101		City: Knoxville		State, Zip: TN, 37920		Job #: <i>500-203513</i>	
Phone: 865-340-4914(Tel)		Email: <i>g.welch@cecinc.com</i>		Project Name: Arconic PCB Rush Project - Lafayette, IN		Site: <i>Elliott Ditch - Lower Reach / soil / sediment</i>		Analysis Requested	
Due Date Requested:		TAT Requested (days): <i>RUSH - Same Day Turn</i>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		PO #: Purchase Order not required		Preservation Codes:	
Project #: 50019033		SSOW#:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Performs (Resists) (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		8082A - PCBs	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wast/oil, BT=Bottom, A=Air)	
						Preservation Code:		Total Number of containers	
								Special Instructions/Note:	
<i>23 ED-RISL-016</i>		<i>8/7/21</i>		<i>1155</i>		<i>C S</i>		<i>X</i>	
<i>24 ED-RISL-017</i>		<i>8/7/21</i>		<i>1205</i>		<i>C S</i>		<i>X</i>	
<i>25 ED-RISL-018</i>		<i>8/7/21</i>		<i>1209</i>		<i>C S</i>		<i>X</i>	
<i>26 ED-RISL-019</i>		<i>8/7/21</i>		<i>1213</i>		<i>C S</i>		<i>X</i>	
<i>27 ED-RISL-021</i>		<i>8/7/21</i>		<i>1218</i>		<i>C S</i>		<i>X</i>	
<i>28 ED-RISL-020</i>		<i>8/7/21</i>		<i>1222</i>		<i>C S</i>		<i>X</i>	
<i>29 ED-RISL-022</i>		<i>8/7/21</i>		<i>1225</i>		<i>C S</i>		<i>X</i>	
<i>30 ED-RISL-023</i>		<i>8/7/21</i>		<i>1231</i>		<i>C S</i>		<i>X</i>	
<i>31 ED-RISL-024</i>		<i>8/7/21</i>		<i>1235</i>		<i>C S</i>		<i>X</i>	
<i>32 ED-RISL-122-1</i>		<i>8/7/21</i>		<i>1246</i>		<i>C S</i>		<i>X</i>	
<i>33 ED-RISL-54006</i>		<i>8/7/21</i>		<i>1310</i>		<i>C S</i>		<i>X</i>	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested. I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:		
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1124</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/9/21 1225</i>	
Relinquished by:		Date/Time:		Company: <i>Page 7 of 20</i>		Received by:		Date/Time: <i>8/16/2021</i>	

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler: <u>G. Welch</u>		Lab PM: <u>Kintz, Robin M</u>		Carrier Tracking No(a):		COC No: <u>500-92290-41114.1</u>			
Client Contact: <u>Garrett Welch</u>		Phone: <u>865-440-1655</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin: <u>IN</u>		Page: <u>603 of 1121</u> Page # of <u>4 of 5</u>			
Company: <u>Civil & Environmental Consultants Inc</u>				PWSID:		Analysis Requested					
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Perform MSD (Yes or No) <input checked="" type="checkbox"/> 8082A - PCBs		Total Number of Containers <input checked="" type="checkbox"/>		Job #: <u>500-213513</u>			
City: <u>Knoxville</u>		TAT Requested (days): <u>RUSH - Same Day Turn</u>						Preservation Codes:			
State, Zip: <u>TN, 37920</u>		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						A - HCL		M - Hexane	
Phone: <u>865-340-4914(Tel)</u>		PO #:						B - NaOH		N - None	
Email: <u>mwelch@cecinc.com</u>		Purchase Order not required						C - Zn Acetate		O - AsNaO2	
Project Name: <u>Arconic PCB Rush Project - Lafayette, IN</u>		Project #: <u>50019033</u>		D - Nitric Acid		P - Na2O4S		E - NaHSO4			
Site: <u>Elliott Ditch - Lower Reach / soil / sediment</u>		SSOW#:		F - MeOH		Q - Na2SO3		R - Na2S2O3			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=wast/oil, BT=Fluore, A=Air)			
								Other:			
								Special Instructions/Note:			
34 ED-RISL-SW007		8/7/21		1316		C S		X			
35 ED-RISL-SW008		8/7/21		1322		C S		X			
36 ED-RISL-SW010		8/7/21		1330		C S		X			
37 ED-RISL-SW009		8/7/21		1325		C S		X			
38 ED-RISL-007-1		8/7/21		1336		C S		X			
39 ED-RISL-001-1		8/7/21		1340		C S		X			
40 ED-RISL-003-1		8/7/21		1345		C S		X			
41 ED-RISL-010-1		8/7/21		1350		C S		X			
42 ED-RISL-012-1		8/7/21		1355		C S		X			
43 ED-RISL-SW001-1		8/7/21		1404		C S		X			
44 ED-RISL-EB02		8/7/21		1425		G W		X			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:						
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/9/21 1124</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/9/21 1124</u>			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/9/21 1225</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/9/21 1225</u>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			

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 University Park, IL 60484
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Chain of Custody Record

eurofins

Client Information		Sampler <i>G. Welch</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1			
Client Contact: Garrett Welch		Phone <i>865-440-1655</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: <i>IN</i>		Page: <i>GAW 8/9/21</i> Page 4 of 5			
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested				Job #: <i>500-203513</i>			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Performs MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers		Preservation Codes:			
City: Knoxville		TAT Requested (days): <i>RUSH - Same Day Turn</i>						A - HCL		M - Hexane	
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						B - NaOH		N - None	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						C - Zn Acetate		O - AsNaO2	
Email: gwelch@cecinc.com		WO #:						D - Nitric Acid		P - Na2O4S	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		E - NaHSO4		Q - Na2SO3		R - Na2S2O3			
Site: <i>Elliott Ditch - Lower Reach 1 soil / Sediment</i>		SSOW#:		F - MeOH		S - H2SO4		T - TSP Dodecahydrate			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil)			
								BT=Tissue, A=Air			
								Preservation Code:			
								X N			
<i>ED-RISL-059</i>		<i>8/9/21</i>		<i>0925</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-060</i>		<i>8/9/21</i>		<i>0929</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-DUP004</i>		<i>8/9/21</i>		<i>/</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-061</i>		<i>8/9/21</i>		<i>0935</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-062</i>		<i>8/9/21</i>		<i>0940</i>		<i>C S</i>		<i>X X</i>			
<i>ED-RISL-063</i>		<i>8/9/21</i>		<i>0945</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-SW001</i>											
<i>ED-RISL-SW011</i>		<i>8/9/21</i>		<i>0951</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-SW012</i>		<i>8/9/21</i>		<i>0955</i>		<i>C S</i>		<i>X</i>			
<i>ED-RISL-EB0304</i>		<i>8/9/21</i>		<i>1005</i>		<i>G W</i>		<i>X</i>			
								<i>GAW 8/9/21</i>			
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:						
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:				
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/9/21 1124</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>				
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/9/21 1225</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>				
Relinquished by:			Date/Time:		Company:		Received by:				
							Date/Time: <i>8/16/2021</i>				
Custody Seals Intact: <input type="checkbox"/> Custody Seal No. _____					Cooler Temperature(s) °C and Other Remarks: <i>20-21°C</i>						

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203513-4

Login Number: 203513

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6,4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

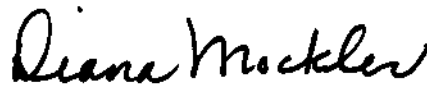
Laboratory Job ID: 500-203584-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

8/12/2021 2:15:32 PM

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Job ID: 500-203584-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203584-1

Comments

No additional comments.

Receipt

The samples were received on 8/10/2021 4:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1° C.

GC Semi VOA

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SL-028-1 (500-203584-2).

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following sample was outside control limits: ED-R1SL-DUP005 (500-203584-4). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Client Sample ID: ED-R1SL-027-1

Lab Sample ID: 500-203584-1

No Detections.

Client Sample ID: ED-R1SL-028-1

Lab Sample ID: 500-203584-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	22		3.7		mg/Kg	200	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-042-1

Lab Sample ID: 500-203584-3

No Detections.

Client Sample ID: ED-R1SL-DUP005

Lab Sample ID: 500-203584-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203584-1	ED-R1SL-027-1	Solid	08/10/21 08:51	08/10/21 16:05
500-203584-2	ED-R1SL-028-1	Solid	08/10/21 09:10	08/10/21 16:05
500-203584-3	ED-R1SL-042-1	Solid	08/10/21 09:17	08/10/21 16:05
500-203584-4	ED-R1SL-DUP005	Solid	08/10/21 00:00	08/10/21 16:05

1

2

3

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5

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7

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9

10

11

12

13

14

15

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Client Sample ID: ED-R1SL-027-1

Lab Sample ID: 500-203584-1

Date Collected: 08/10/21 08:51

Matrix: Solid

Date Received: 08/10/21 16:05

Percent Solids: 84.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 04:56	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 04:56	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 04:56	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 04:56	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 04:56	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 04:56	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 04:56	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	08/11/21 17:09	08/12/21 04:56	20
DCB Decachlorobiphenyl	98		37 - 121	08/11/21 17:09	08/12/21 04:56	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Client Sample ID: ED-R1SL-028-1

Lab Sample ID: 500-203584-2

Date Collected: 08/10/21 09:10

Matrix: Solid

Date Received: 08/10/21 16:05

Percent Solids: 89.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3.7		3.7		mg/Kg	☼	08/11/21 17:09	08/12/21 07:50	200
PCB-1221	<3.7		3.7		mg/Kg	☼	08/11/21 17:09	08/12/21 07:50	200
PCB-1232	<3.7		3.7		mg/Kg	☼	08/11/21 17:09	08/12/21 07:50	200
PCB-1242	<3.7		3.7		mg/Kg	☼	08/11/21 17:09	08/12/21 07:50	200
PCB-1248	22		3.7		mg/Kg	☼	08/11/21 17:09	08/12/21 07:50	200
PCB-1254	<3.7		3.7		mg/Kg	☼	08/11/21 17:09	08/12/21 07:50	200
PCB-1260	<3.7		3.7		mg/Kg	☼	08/11/21 17:09	08/12/21 07:50	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		49 - 129	08/11/21 17:09	08/12/21 07:50	200
DCB Decachlorobiphenyl	113		37 - 121	08/11/21 17:09	08/12/21 07:50	200

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Client Sample ID: ED-R1SL-042-1

Lab Sample ID: 500-203584-3

Date Collected: 08/10/21 09:17

Matrix: Solid

Date Received: 08/10/21 16:05

Percent Solids: 86.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	✱	08/11/21 17:09	08/12/21 05:58	20
PCB-1221	<0.38		0.38		mg/Kg	✱	08/11/21 17:09	08/12/21 05:58	20
PCB-1232	<0.38		0.38		mg/Kg	✱	08/11/21 17:09	08/12/21 05:58	20
PCB-1242	<0.38		0.38		mg/Kg	✱	08/11/21 17:09	08/12/21 05:58	20
PCB-1248	<0.38		0.38		mg/Kg	✱	08/11/21 17:09	08/12/21 05:58	20
PCB-1254	<0.38		0.38		mg/Kg	✱	08/11/21 17:09	08/12/21 05:58	20
PCB-1260	<0.38		0.38		mg/Kg	✱	08/11/21 17:09	08/12/21 05:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		49 - 129	08/11/21 17:09	08/12/21 05:58	20
DCB Decachlorobiphenyl	115		37 - 121	08/11/21 17:09	08/12/21 05:58	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Client Sample ID: ED-R1SL-DUP005

Lab Sample ID: 500-203584-4

Date Collected: 08/10/21 00:00

Matrix: Solid

Date Received: 08/10/21 16:05

Percent Solids: 85.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 06:13	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 06:13	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 06:13	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 06:13	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 06:13	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 06:13	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/11/21 17:09	08/12/21 06:13	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		49 - 129	08/11/21 17:09	08/12/21 06:13	20
DCB Decachlorobiphenyl	125	S1+	37 - 121	08/11/21 17:09	08/12/21 06:13	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

GC Semi VOA

Prep Batch: 613828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203584-1	ED-R1SL-027-1	Total/NA	Solid	3541	
500-203584-2	ED-R1SL-028-1	Total/NA	Solid	3541	
500-203584-3	ED-R1SL-042-1	Total/NA	Solid	3541	
500-203584-4	ED-R1SL-DUP005	Total/NA	Solid	3541	
MB 500-613828/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-613828/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203584-1 MS	ED-R1SL-027-1	Total/NA	Solid	3541	
500-203584-1 MSD	ED-R1SL-027-1	Total/NA	Solid	3541	

Analysis Batch: 613842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203584-1	ED-R1SL-027-1	Total/NA	Solid	8082A	613828
500-203584-2	ED-R1SL-028-1	Total/NA	Solid	8082A	613828
500-203584-3	ED-R1SL-042-1	Total/NA	Solid	8082A	613828
500-203584-4	ED-R1SL-DUP005	Total/NA	Solid	8082A	613828
MB 500-613828/1-A	Method Blank	Total/NA	Solid	8082A	613828
LCS 500-613828/2-A	Lab Control Sample	Total/NA	Solid	8082A	613828
500-203584-1 MS	ED-R1SL-027-1	Total/NA	Solid	8082A	613828
500-203584-1 MSD	ED-R1SL-027-1	Total/NA	Solid	8082A	613828

General Chemistry

Analysis Batch: 613649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203584-1	ED-R1SL-027-1	Total/NA	Solid	Moisture	
500-203584-2	ED-R1SL-028-1	Total/NA	Solid	Moisture	
500-203584-3	ED-R1SL-042-1	Total/NA	Solid	Moisture	
500-203584-4	ED-R1SL-DUP005	Total/NA	Solid	Moisture	
500-203584-1 DU	ED-R1SL-027-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203584-1	ED-R1SL-027-1	63	98
500-203584-1 MS	ED-R1SL-027-1	72	93
500-203584-1 MSD	ED-R1SL-027-1	66	100
500-203584-2	ED-R1SL-028-1	68	113
500-203584-3	ED-R1SL-042-1	88	115
500-203584-4	ED-R1SL-DUP005	81	125 S1+
LCS 500-613828/2-A	Lab Control Sample	75	98
MB 500-613828/1-A	Method Blank	70	89

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-613828/1-A
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613828

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1221	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1232	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1242	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1248	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1254	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20
PCB-1260	<0.33		0.33		mg/Kg		08/11/21 17:09	08/12/21 00:18	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	70		49 - 129	08/11/21 17:09	08/12/21 00:18	20
DCB Decachlorobiphenyl	89		37 - 121	08/11/21 17:09	08/12/21 00:18	20

Lab Sample ID: LCS 500-613828/2-A
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613828

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.28		mg/Kg		77	57 - 120
PCB-1260	1.67	1.41		mg/Kg		85	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	75		49 - 129
DCB Decachlorobiphenyl	98		37 - 121

Lab Sample ID: 500-203584-1 MS
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: ED-R1SL-027-1
Prep Type: Total/NA
Prep Batch: 613828

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.38		1.89	1.56		mg/Kg	☼	82	57 - 120
PCB-1260	<0.38		1.89	1.74		mg/Kg	☼	92	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	72		49 - 129
DCB Decachlorobiphenyl	93		37 - 121

Lab Sample ID: 500-203584-1 MSD
Matrix: Solid
Analysis Batch: 613842

Client Sample ID: ED-R1SL-027-1
Prep Type: Total/NA
Prep Batch: 613828

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.38		1.90	1.53		mg/Kg	☼	81	57 - 120	2	30
PCB-1260	<0.38		1.90	1.69		mg/Kg	☼	89	61 - 125	3	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	66		49 - 129
DCB Decachlorobiphenyl	100		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Client Sample ID: ED-R1SL-027-1

Date Collected: 08/10/21 08:51

Date Received: 08/10/21 16:05

Lab Sample ID: 500-203584-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613649	08/11/21 07:03	LWN	TAL CHI

Client Sample ID: ED-R1SL-027-1

Date Collected: 08/10/21 08:51

Date Received: 08/10/21 16:05

Lab Sample ID: 500-203584-1

Matrix: Solid

Percent Solids: 84.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 04:56	JBj	TAL CHI

Client Sample ID: ED-R1SL-028-1

Date Collected: 08/10/21 09:10

Date Received: 08/10/21 16:05

Lab Sample ID: 500-203584-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613649	08/11/21 07:03	LWN	TAL CHI

Client Sample ID: ED-R1SL-028-1

Date Collected: 08/10/21 09:10

Date Received: 08/10/21 16:05

Lab Sample ID: 500-203584-2

Matrix: Solid

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		200	613842	08/12/21 07:50	JBj	TAL CHI

Client Sample ID: ED-R1SL-042-1

Date Collected: 08/10/21 09:17

Date Received: 08/10/21 16:05

Lab Sample ID: 500-203584-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613649	08/11/21 07:03	LWN	TAL CHI

Client Sample ID: ED-R1SL-042-1

Date Collected: 08/10/21 09:17

Date Received: 08/10/21 16:05

Lab Sample ID: 500-203584-3

Matrix: Solid

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 05:58	JBj	TAL CHI

Client Sample ID: ED-R1SL-DUP005

Date Collected: 08/10/21 00:00

Date Received: 08/10/21 16:05

Lab Sample ID: 500-203584-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613649	08/11/21 07:03	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Client Sample ID: ED-R1SL-DUP005

Lab Sample ID: 500-203584-4

Date Collected: 08/10/21 00:00

Matrix: Solid

Date Received: 08/10/21 16:05

Percent Solids: 85.9

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			613828	08/11/21 17:09	JP1	TAL CHI
Total/NA	Analysis	8082A		20	613842	08/12/21 06:13	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler: G. Welch	Lab PM: Kintz, Robin M		Carrier Tracking No(s):	COC No: 500-92290-41114 1		
Client Contact: Garrett Welch		Phone: 865-440-1655	E-Mail: Robin.Kintz@Eurofinset.com		State of Origin: TN	Page: Page 1 of 1		
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested		Job #: 500-20358A		
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:						
City: Knoxville		TAT Requested (days): SAME DAY				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)		
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No						
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required		500-203584 COC		Total Number of Containers		
Email: g.welch@cecinc.com		WO #:						
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		Field Filtered Sample (Yes or No) Perform ME/MSD (Yes or No) 8082A - PCBs		Special Instructions/Note:		
Site: Elliott Ditch - Lake Reach 1		SSOW#:						
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=volatile)			
				Preservation Code:				
1	ED-RISL-027-1	8/10/21	0851	C	S	3		
2	ED-RISL-028-1	8/10/21	0910	C	S	1		
3	ED-RISL-042-1	8/10/21	0917	C	S	1		
4	ED-RISL-DUP005	8/10/21	/	C	S	1		
5	ED-RISL-EB05	8/10/21	1030	G	W	2		
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements: temp: 23+2.1						
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:				
Relinquished by: <i>JAW</i>		Date/Time: 8/10/21 1500	Company: LEC	Received by: <i>A. Neal</i>		Date/Time: 8/10/21 1500	Company: ETC	
Relinquished by: <i>A. Neal</i>		Date/Time: 8/10/21 1605	Company: ETC	Received by: <i>Stephanie Hernandez</i>		Date/Time: 8/10/21 1605	Company: EPA/CH2	
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:	

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203584-1

Login Number: 203584

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203584-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/16/2021 2:33:28 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Job ID: 500-203584-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203584-2

Comments

No additional comments.

Receipt

The samples were received on 8/10/2021 4:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1° C.

GC Semi VOA

Method 8082A: Surrogate recovery for the following method blank (MB) was outside the upper control limit: (MB 500-614197/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Client Sample ID: ED-R1SL-EB05

Lab Sample ID: 500-203584-5

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203584-5	ED-R1SL-EB05	Water	08/10/21 10:30	08/10/21 16:05

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Client Sample ID: ED-R1SL-EB05

Lab Sample ID: 500-203584-5

Date Collected: 08/10/21 10:30

Matrix: Water

Date Received: 08/10/21 16:05

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:52	1
PCB-1221	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:52	1
PCB-1232	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:52	1
PCB-1242	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:52	1
PCB-1248	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:52	1
PCB-1254	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:52	1
PCB-1260	<0.00039		0.00039		mg/L		08/13/21 11:57	08/14/21 00:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	109		30 - 120	08/13/21 11:57	08/14/21 00:52	1
DCB Decachlorobiphenyl	104		30 - 140	08/13/21 11:57	08/14/21 00:52	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

GC Semi VOA

Prep Batch: 614197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203584-5	ED-R1SL-EB05	Total/NA	Water	3510C	
MB 500-614197/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-614197/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-614197/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 614251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203584-5	ED-R1SL-EB05	Total/NA	Water	8082A	614197
MB 500-614197/1-A	Method Blank	Total/NA	Water	8082A	614197
LCS 500-614197/4-A	Lab Control Sample	Total/NA	Water	8082A	614197
LCSD 500-614197/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	614197

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-203584-5	ED-R1SL-EB05	109	104
LCS 500-614197/4-A	Lab Control Sample	49	69
LCSD 500-614197/5-A	Lab Control Sample Dup	56	83
MB 500-614197/1-A	Method Blank	146 S1+	202 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-614197/1-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614197

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1221	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1232	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1242	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1248	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1254	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1
PCB-1260	<0.00040		0.00040		mg/L		08/13/21 11:57	08/13/21 23:15	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	146	S1+	30 - 120	08/13/21 11:57	08/13/21 23:15	1
DCB Decachlorobiphenyl	202	S1+	30 - 140	08/13/21 11:57	08/13/21 23:15	1

Lab Sample ID: LCS 500-614197/4-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614197

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00200	0.00143		mg/L		71	56 - 120
PCB-1260	0.00200	0.00152		mg/L		76	53 - 137

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	49		30 - 120
DCB Decachlorobiphenyl	69		30 - 140

Lab Sample ID: LCSD 500-614197/5-A
Matrix: Water
Analysis Batch: 614251

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 614197

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
PCB-1016	0.00200	0.00161		mg/L		80	56 - 120	12	20
PCB-1260	0.00200	0.00171		mg/L		85	53 - 137	12	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	56		30 - 120
DCB Decachlorobiphenyl	83		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Client Sample ID: ED-R1SL-EB05

Lab Sample ID: 500-203584-5

Date Collected: 08/10/21 10:30

Matrix: Water

Date Received: 08/10/21 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			614197	08/13/21 11:57	SB	TAL CHI
Total/NA	Analysis	8082A		1	614251	08/14/21 00:52	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203584-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203584-2

Login Number: 203584

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203636-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

8/13/2021 8:34:07 AM

Diana Mockler, Project Manager I
(219)252-7570

Diana.Mockler@Eurofinset.com

Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Client Sample ID: ED-R1SL-016-1

Lab Sample ID: 500-203636-1

No Detections.

Client Sample ID: ED-R1SL-001-2

Lab Sample ID: 500-203636-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.4		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R1SL-122-2

Lab Sample ID: 500-203636-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203636-1	ED-R1SL-016-1	Solid	08/11/21 08:20	08/11/21 16:05
500-203636-2	ED-R1SL-001-2	Solid	08/11/21 09:48	08/11/21 16:05
500-203636-3	ED-R1SL-122-2	Solid	08/11/21 10:30	08/11/21 16:05

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Client Sample ID: ED-R1SL-016-1

Lab Sample ID: 500-203636-1

Date Collected: 08/11/21 08:20

Matrix: Solid

Date Received: 08/11/21 16:05

Percent Solids: 91.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	08/12/21 06:44	08/12/21 16:15	20
PCB-1221	<0.35		0.35		mg/Kg	☼	08/12/21 06:44	08/12/21 16:15	20
PCB-1232	<0.35		0.35		mg/Kg	☼	08/12/21 06:44	08/12/21 16:15	20
PCB-1242	<0.35		0.35		mg/Kg	☼	08/12/21 06:44	08/12/21 16:15	20
PCB-1248	<0.35		0.35		mg/Kg	☼	08/12/21 06:44	08/12/21 16:15	20
PCB-1254	<0.35		0.35		mg/Kg	☼	08/12/21 06:44	08/12/21 16:15	20
PCB-1260	<0.35		0.35		mg/Kg	☼	08/12/21 06:44	08/12/21 16:15	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	61		49 - 129	08/12/21 06:44	08/12/21 16:15	20
DCB Decachlorobiphenyl	85		37 - 121	08/12/21 06:44	08/12/21 16:15	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Client Sample ID: ED-R1SL-001-2

Lab Sample ID: 500-203636-2

Date Collected: 08/11/21 09:48

Matrix: Solid

Date Received: 08/11/21 16:05

Percent Solids: 88.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 16:30	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 16:30	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 16:30	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 16:30	20
PCB-1248	1.4		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 16:30	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 16:30	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/12/21 06:44	08/12/21 16:30	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	76		49 - 129	08/12/21 06:44	08/12/21 16:30	20
DCB Decachlorobiphenyl	93		37 - 121	08/12/21 06:44	08/12/21 16:30	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Client Sample ID: ED-R1SL-122-2

Lab Sample ID: 500-203636-3

Date Collected: 08/11/21 10:30

Matrix: Solid

Date Received: 08/11/21 16:05

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 16:46	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 16:46	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 16:46	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 16:46	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 16:46	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 16:46	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/12/21 06:44	08/12/21 16:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	73		49 - 129	08/12/21 06:44	08/12/21 16:46	20
DCB Decachlorobiphenyl	100		37 - 121	08/12/21 06:44	08/12/21 16:46	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

GC Semi VOA

Prep Batch: 613862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203636-1	ED-R1SL-016-1	Total/NA	Solid	3541	
500-203636-2	ED-R1SL-001-2	Total/NA	Solid	3541	
500-203636-3	ED-R1SL-122-2	Total/NA	Solid	3541	
MB 500-613862/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-613862/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 614012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203636-1	ED-R1SL-016-1	Total/NA	Solid	8082A	613862
500-203636-2	ED-R1SL-001-2	Total/NA	Solid	8082A	613862
500-203636-3	ED-R1SL-122-2	Total/NA	Solid	8082A	613862
MB 500-613862/1-A	Method Blank	Total/NA	Solid	8082A	613862
LCS 500-613862/2-A	Lab Control Sample	Total/NA	Solid	8082A	613862

General Chemistry

Analysis Batch: 613823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203636-1	ED-R1SL-016-1	Total/NA	Solid	Moisture	
500-203636-2	ED-R1SL-001-2	Total/NA	Solid	Moisture	
500-203636-3	ED-R1SL-122-2	Total/NA	Solid	Moisture	
500-203636-1 DU	ED-R1SL-016-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203636-1	ED-R1SL-016-1	61	85
500-203636-2	ED-R1SL-001-2	76	93
500-203636-3	ED-R1SL-122-2	73	100
LCS 500-613862/2-A	Lab Control Sample	83	109
MB 500-613862/1-A	Method Blank	72	90

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-613862/1-A
Matrix: Solid
Analysis Batch: 614012

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613862

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1221	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1232	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1242	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1248	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1254	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20
PCB-1260	<0.33		0.33		mg/Kg		08/12/21 06:44	08/12/21 15:44	20

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	72		49 - 129	08/12/21 06:44	08/12/21 15:44	20
<i>DCB Decachlorobiphenyl</i>	90		37 - 121	08/12/21 06:44	08/12/21 15:44	20

Lab Sample ID: LCS 500-613862/2-A
Matrix: Solid
Analysis Batch: 614012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	1.67	1.42		mg/Kg		85	57 - 120
PCB-1260	1.67	1.61		mg/Kg		96	61 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
<i>Tetrachloro-m-xylene</i>	83		49 - 129
<i>DCB Decachlorobiphenyl</i>	109		37 - 121

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Client Sample ID: ED-R1SL-016-1

Lab Sample ID: 500-203636-1

Date Collected: 08/11/21 08:20

Matrix: Solid

Date Received: 08/11/21 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613823	08/11/21 16:41	LWN	TAL CHI

Client Sample ID: ED-R1SL-016-1

Lab Sample ID: 500-203636-1

Date Collected: 08/11/21 08:20

Matrix: Solid

Date Received: 08/11/21 16:05

Percent Solids: 91.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 16:15	SS	TAL CHI

Client Sample ID: ED-R1SL-001-2

Lab Sample ID: 500-203636-2

Date Collected: 08/11/21 09:48

Matrix: Solid

Date Received: 08/11/21 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613823	08/11/21 16:41	LWN	TAL CHI

Client Sample ID: ED-R1SL-001-2

Lab Sample ID: 500-203636-2

Date Collected: 08/11/21 09:48

Matrix: Solid

Date Received: 08/11/21 16:05

Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 16:30	SS	TAL CHI

Client Sample ID: ED-R1SL-122-2

Lab Sample ID: 500-203636-3

Date Collected: 08/11/21 10:30

Matrix: Solid

Date Received: 08/11/21 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	613823	08/11/21 16:41	LWN	TAL CHI

Client Sample ID: ED-R1SL-122-2

Lab Sample ID: 500-203636-3

Date Collected: 08/11/21 10:30

Matrix: Solid

Date Received: 08/11/21 16:05

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			613862	08/12/21 06:44	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614012	08/12/21 16:46	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

- 1
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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203636-1

Login Number: 203636

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

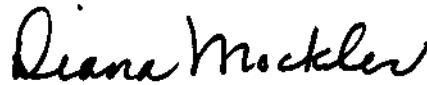
Laboratory Job ID: 500-203636-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:

8/13/2021 8:36:40 AM

Diana Mockler, Project Manager I
(219)252-7570

Diana.Mockler@Eurofinset.com

Designee for

Robin Kintz, Project Manager II
(708)534-5200

Robin.Kintz@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Job ID: 500-203636-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-203636-2**

Comments

No additional comments.

Receipt

The samples were received on 8/11/2021 4:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2° C.

GC Semi VOA

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following method blank (MB) was outside control limits: (MB 500-613857/1-A). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Client Sample ID: ED-R1SL-EB06

Lab Sample ID: 500-203636-4

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203636-4	ED-R1SL-EB06	Water	08/11/21 11:10	08/11/21 16:05

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Client Sample ID: ED-R1SL-EB06

Lab Sample ID: 500-203636-4

Date Collected: 08/11/21 11:10

Matrix: Water

Date Received: 08/11/21 16:05

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00041		0.00041		mg/L		08/12/21 06:36	08/12/21 13:51	1
PCB-1221	<0.00041		0.00041		mg/L		08/12/21 06:36	08/12/21 13:51	1
PCB-1232	<0.00041		0.00041		mg/L		08/12/21 06:36	08/12/21 13:51	1
PCB-1242	<0.00041		0.00041		mg/L		08/12/21 06:36	08/12/21 13:51	1
PCB-1248	<0.00041		0.00041		mg/L		08/12/21 06:36	08/12/21 13:51	1
PCB-1254	<0.00041		0.00041		mg/L		08/12/21 06:36	08/12/21 13:51	1
PCB-1260	<0.00041		0.00041		mg/L		08/12/21 06:36	08/12/21 13:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	56		30 - 120	08/12/21 06:36	08/12/21 13:51	1
DCB Decachlorobiphenyl	42		30 - 140	08/12/21 06:36	08/12/21 13:51	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

GC Semi VOA

Prep Batch: 613857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203636-4	ED-R1SL-EB06	Total/NA	Water	3510C	
MB 500-613857/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-613857/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-613857/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 613923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203636-4	ED-R1SL-EB06	Total/NA	Water	8082A	613857
MB 500-613857/1-A	Method Blank	Total/NA	Water	8082A	613857
LCS 500-613857/4-A	Lab Control Sample	Total/NA	Water	8082A	613857
LCSD 500-613857/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	613857

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-203636-4	ED-R1SL-EB06	56	42
LCS 500-613857/4-A	Lab Control Sample	48	68
LCSD 500-613857/5-A	Lab Control Sample Dup	47	94
MB 500-613857/1-A	Method Blank	14 S1-	31

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-613857/1-A
Matrix: Water
Analysis Batch: 613923

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 613857

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		08/12/21 06:36	08/12/21 11:57	1
PCB-1221	<0.00040		0.00040		mg/L		08/12/21 06:36	08/12/21 11:57	1
PCB-1232	<0.00040		0.00040		mg/L		08/12/21 06:36	08/12/21 11:57	1
PCB-1242	<0.00040		0.00040		mg/L		08/12/21 06:36	08/12/21 11:57	1
PCB-1248	<0.00040		0.00040		mg/L		08/12/21 06:36	08/12/21 11:57	1
PCB-1254	<0.00040		0.00040		mg/L		08/12/21 06:36	08/12/21 11:57	1
PCB-1260	<0.00040		0.00040		mg/L		08/12/21 06:36	08/12/21 11:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	14	S1-	30 - 120	08/12/21 06:36	08/12/21 11:57	1
DCB Decachlorobiphenyl	31		30 - 140	08/12/21 06:36	08/12/21 11:57	1

Lab Sample ID: LCS 500-613857/4-A
Matrix: Water
Analysis Batch: 613923

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 613857

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00293		mg/L		73	56 - 120
PCB-1260	0.00400	0.00330		mg/L		83	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	48		30 - 120
DCB Decachlorobiphenyl	68		30 - 140

Lab Sample ID: LCSD 500-613857/5-A
Matrix: Water
Analysis Batch: 613923

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 613857

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00331		mg/L		83	56 - 120	12	20
PCB-1260	0.00400	0.00365		mg/L		91	53 - 137	10	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	47		30 - 120
DCB Decachlorobiphenyl	94		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Client Sample ID: ED-R1SL-EB06

Lab Sample ID: 500-203636-4

Date Collected: 08/11/21 11:10

Matrix: Water

Date Received: 08/11/21 16:05

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			613857	08/12/21 06:36	SB	TAL CHI
Total/NA	Analysis	8082A		1	613923	08/12/21 13:51	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203636-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information			Sampler <i>G. Welch</i>	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 500-92290-41114 1					
Client Contact: Garrett Welch			Phone: <i>865-440-1655</i>	E-Mail: Robin.Kintz@Eurofinset.com	State of Origin: TAJ	Page: Page 1 of 1					
Company: Civil & Environmental Consultants Inc			PWSID:		Analysis Requested						
Address: 2704 Cherokee Farm Way Suite 101			Due Date Requested:		Job #: <i>500-203636</i>						
City: Knoxville			TAT Requested (days): <i>RUSH - SAME DAY TURN</i>		Preservation Codes:						
State, Zip: TN, 37920			Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascrobic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)						
Phone: 865-340-4914(Tel)			PO #: Purchase Order not required		Other:						
Email: gwelch@cecinc.com			WO #:		Total Number of containers						
Project Name: Arconic PCB Rush Project - Lafayette, IN			Project #: 50019033								
Site: <i>Elliott Ditch - lower Reach 1</i>			SSOW#:								
Arconic Lafayette			Field Filtered Sample (Yes or No)		Special Instructions/Note:						
Sample Identification			Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=volatile, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Performance Results (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
1 ED-RISL-016-1			8/11/21	0820	C	S		X		1	
2 ED-RISL-001-2			8/11/21	0948	C	S		X		1	Prioritize
3 ED-RISL-122-2			8/11/21	1030	C	S		X		1	Prioritize
4 ED-RISL-EB06			8/11/21	1110	G	W		X		2	
Possible Hazard Identification			<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Deliverable Requested: I, II, III, IV, Other (specify)						<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			Special Instructions/QC Requirements: <i>44-742</i>		
Empty Kit Relinquished by:			Date:	Time:	Method of Shipment:						
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/11/2021 1450</i>	Company: <i>CEC</i>	Received by: <i>[Signature]</i>			Date/Time: <i>8/11/21 1450</i>	Company: <i>[Signature]</i>		
Relinquished by: <i>P. Neal</i>			Date/Time: <i>8/11/21 1605</i>	Company: <i>FA</i>	Received by: <i>[Signature]</i>			Date/Time: <i>8/11/21 1605</i>	Company: <i>[Signature]</i>		
Relinquished by:			Date/Time:	Company:	Received by:			Date/Time:	Company:		

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203636-2

Login Number: 203636

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-203725-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/16/2021 10:02:57 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Job ID: 500-203725-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-203725-1**

Comments

No additional comments.

Receipt

The sample was received on 8/12/2021 4:08 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.5° C.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following sample was outside control limits: (MB 500-614073/1-A). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SL-049-1 (500-203725-1).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Client Sample ID: ED-R1SL-049-1

Lab Sample ID: 500-203725-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.4		0.39		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

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Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203725-1	ED-R1SL-049-1	Solid	08/12/21 11:35	08/12/21 16:08

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Client Sample ID: ED-R1SL-049-1

Lab Sample ID: 500-203725-1

Date Collected: 08/12/21 11:35

Matrix: Solid

Date Received: 08/12/21 16:08

Percent Solids: 85.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/13/21 05:28	08/13/21 18:51	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/13/21 05:28	08/13/21 18:51	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/13/21 05:28	08/13/21 18:51	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/13/21 05:28	08/13/21 18:51	20
PCB-1248	1.4		0.39		mg/Kg	☼	08/13/21 05:28	08/13/21 18:51	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/13/21 05:28	08/13/21 18:51	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/13/21 05:28	08/13/21 18:51	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/13/21 05:28	08/13/21 18:51	20
DCB Decachlorobiphenyl	106		37 - 121	08/13/21 05:28	08/13/21 18:51	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

GC Semi VOA

Prep Batch: 614073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203725-1	ED-R1SL-049-1	Total/NA	Solid	3541	
MB 500-614073/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-614073/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203725-1 MS	ED-R1SL-049-1	Total/NA	Solid	3541	
500-203725-1 MSD	ED-R1SL-049-1	Total/NA	Solid	3541	

Analysis Batch: 614234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203725-1	ED-R1SL-049-1	Total/NA	Solid	8082A	614073
MB 500-614073/1-A	Method Blank	Total/NA	Solid	8082A	614073
LCS 500-614073/2-A	Lab Control Sample	Total/NA	Solid	8082A	614073
500-203725-1 MS	ED-R1SL-049-1	Total/NA	Solid	8082A	614073
500-203725-1 MSD	ED-R1SL-049-1	Total/NA	Solid	8082A	614073

General Chemistry

Analysis Batch: 614077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203725-1	ED-R1SL-049-1	Total/NA	Solid	Moisture	
500-203725-1 DU	ED-R1SL-049-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203725-1	ED-R1SL-049-1	77	106
500-203725-1 MS	ED-R1SL-049-1	82	113
500-203725-1 MSD	ED-R1SL-049-1	85	111
LCS 500-614073/2-A	Lab Control Sample	75	108
MB 500-614073/1-A	Method Blank	96	133 S1+

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-614073/1-A
Matrix: Solid
Analysis Batch: 614234

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614073

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/13/21 05:28	08/13/21 18:20	20
PCB-1221	<0.33		0.33		mg/Kg		08/13/21 05:28	08/13/21 18:20	20
PCB-1232	<0.33		0.33		mg/Kg		08/13/21 05:28	08/13/21 18:20	20
PCB-1242	<0.33		0.33		mg/Kg		08/13/21 05:28	08/13/21 18:20	20
PCB-1248	<0.33		0.33		mg/Kg		08/13/21 05:28	08/13/21 18:20	20
PCB-1254	<0.33		0.33		mg/Kg		08/13/21 05:28	08/13/21 18:20	20
PCB-1260	<0.33		0.33		mg/Kg		08/13/21 05:28	08/13/21 18:20	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	96		49 - 129	08/13/21 05:28	08/13/21 18:20	20
DCB Decachlorobiphenyl	133	S1+	37 - 121	08/13/21 05:28	08/13/21 18:20	20

Lab Sample ID: LCS 500-614073/2-A
Matrix: Solid
Analysis Batch: 614234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614073

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.32		mg/Kg		79	57 - 120
PCB-1260	1.67	1.57		mg/Kg		94	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	75		49 - 129
DCB Decachlorobiphenyl	108		37 - 121

Lab Sample ID: 500-203725-1 MS
Matrix: Solid
Analysis Batch: 614234

Client Sample ID: ED-R1SL-049-1
Prep Type: Total/NA
Prep Batch: 614073

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.39		1.95	2.30		mg/Kg	☼	118	57 - 120
PCB-1260	<0.39		1.95	2.24		mg/Kg	☼	115	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	82		49 - 129
DCB Decachlorobiphenyl	113		37 - 121

Lab Sample ID: 500-203725-1 MSD
Matrix: Solid
Analysis Batch: 614234

Client Sample ID: ED-R1SL-049-1
Prep Type: Total/NA
Prep Batch: 614073

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.39		1.90	2.25		mg/Kg	☼	119	57 - 120	2	30
PCB-1260	<0.39		1.90	2.12		mg/Kg	☼	111	61 - 125	6	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	85		49 - 129
DCB Decachlorobiphenyl	111		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Client Sample ID: ED-R1SL-049-1

Lab Sample ID: 500-203725-1

Date Collected: 08/12/21 11:35

Matrix: Solid

Date Received: 08/12/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	614077	08/13/21 06:36	LWN	TAL CHI

Client Sample ID: ED-R1SL-049-1

Lab Sample ID: 500-203725-1

Date Collected: 08/12/21 11:35

Matrix: Solid

Date Received: 08/12/21 16:08

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			614073	08/13/21 05:28	CLL	TAL CHI
Total/NA	Analysis	8082A		20	614234	08/13/21 18:51	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203725-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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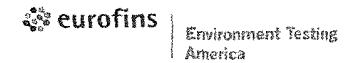
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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone 708-534-5200 Fax. 708-534-5211

Chain of Custody Record



Client Information		Sampler: <u>G. Welch</u>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92364-41159 1	
Client Contact: Garrett Welch		Phone: <u>865-440-1655</u>		E-Mail: Robin Kintz@Eurofinset.com		State of Origin: <u>IN</u>		Page: Page 1 of 1	
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested				Job #: <u>500-203725</u>	
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:						Preservation Codes A - HCL M Hexane B - NaOH N None C - Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E - NaHSO4 Q Na2SO3 F - MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L EDA Z other (specify)	
City: Knoxville		TAT Requested (days): <u>RUSH - SAME DAY</u>							
State, Zip: TN, 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 865-340-4914(Tel)		PO #							
Purchase Order Requested		WO #							
Email: gwelch@cecinc.com		Project #: 50019063		Field Filtered Samples (Yes or No)		Total Number of Containers		Special Instructions/Note	
Project Name:		SSOW#:		Perform MS/MSD (Yes or No)		500-92364-41159			
Site: <u>Elliott Ditch - Lower Reach 1</u>		Soil		400-PEB - Priority Pollutant PCB's <u>GAW 8/12/21</u>		400-4B - Oil and Grease <u>GAW 8/12/21</u>		25-AP - ISS <u>GAW 8/12/21</u>	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
ED-RISL-049-1		8/12/21		1135		C		S	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab		Archive For _____ Months	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested I, II III IV, Other (specify)		Special Instructions/QC Requirements		Empty Kit Relinquished by		Date	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/12/21 1505</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/12/21 1505</u>	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/12/21 1608</u>		Company: <u>EA</u>		Received by: <u>Stephanie Hernandez</u>		Date/Time: <u>8/12/21 1608</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 14 of 15		Cooler Temperature(s) °C and Other Remarks: <u>1.5 + 2.5</u>		8/16/2021	

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203725-1

Login Number: 203725

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Hernandez, Stephanie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-203812-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/16/2021 12:14:46 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Job ID: 500-203812-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203812-1

Comments

No additional comments.

Receipt

The samples were received on 8/13/2021 4:08 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.0° C.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-614234/1). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following sample was outside control limits: ED-R1SL-028-2 (500-203812-2). The other surrogate was within limits and the sample was non-detect for the target analytes; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Client Sample ID: ED-R1SL-001-3

Lab Sample ID: 500-203812-1

No Detections.

Client Sample ID: ED-R1SL-028-2

Lab Sample ID: 500-203812-2

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203812-1	ED-R1SL-001-3	Solid	08/13/21 12:07	08/13/21 16:08
500-203812-2	ED-R1SL-028-2	Solid	08/13/21 12:31	08/13/21 16:08

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Client Sample ID: ED-R1SL-001-3

Lab Sample ID: 500-203812-1

Date Collected: 08/13/21 12:07

Matrix: Solid

Date Received: 08/13/21 16:08

Percent Solids: 88.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/13/21 16:46	08/14/21 01:47	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/13/21 16:46	08/14/21 01:47	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/13/21 16:46	08/14/21 01:47	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/13/21 16:46	08/14/21 01:47	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/13/21 16:46	08/14/21 01:47	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/13/21 16:46	08/14/21 01:47	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/13/21 16:46	08/14/21 01:47	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	93		49 - 129	08/13/21 16:46	08/14/21 01:47	20
DCB Decachlorobiphenyl	114		37 - 121	08/13/21 16:46	08/14/21 01:47	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Client Sample ID: ED-R1SL-028-2

Lab Sample ID: 500-203812-2

Date Collected: 08/13/21 12:31

Matrix: Solid

Date Received: 08/13/21 16:08

Percent Solids: 86.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/13/21 16:46	08/14/21 02:34	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/13/21 16:46	08/14/21 02:34	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/13/21 16:46	08/14/21 02:34	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/13/21 16:46	08/14/21 02:34	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/13/21 16:46	08/14/21 02:34	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/13/21 16:46	08/14/21 02:34	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/13/21 16:46	08/14/21 02:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	116		49 - 129	08/13/21 16:46	08/14/21 02:34	20
DCB Decachlorobiphenyl	162	S1+	37 - 121	08/13/21 16:46	08/14/21 02:34	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

GC Semi VOA

Prep Batch: 614230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203812-1	ED-R1SL-001-3	Total/NA	Solid	3541	
500-203812-2	ED-R1SL-028-2	Total/NA	Solid	3541	
MB 500-614230/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-614230/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203812-1 MS	ED-R1SL-001-3	Total/NA	Solid	3541	
500-203812-1 MSD	ED-R1SL-001-3	Total/NA	Solid	3541	

Analysis Batch: 614234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203812-1	ED-R1SL-001-3	Total/NA	Solid	8082A	614230
500-203812-2	ED-R1SL-028-2	Total/NA	Solid	8082A	614230
MB 500-614230/1-A	Method Blank	Total/NA	Solid	8082A	614230
LCS 500-614230/2-A	Lab Control Sample	Total/NA	Solid	8082A	614230
500-203812-1 MS	ED-R1SL-001-3	Total/NA	Solid	8082A	614230
500-203812-1 MSD	ED-R1SL-001-3	Total/NA	Solid	8082A	614230

General Chemistry

Analysis Batch: 614340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203812-1	ED-R1SL-001-3	Total/NA	Solid	Moisture	
500-203812-2	ED-R1SL-028-2	Total/NA	Solid	Moisture	
500-203812-1 DU	ED-R1SL-001-3	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-203812-1	ED-R1SL-001-3	93	114
500-203812-1 MS	ED-R1SL-001-3	80	111
500-203812-1 MSD	ED-R1SL-001-3	77	118
500-203812-2	ED-R1SL-028-2	116	162 S1+
LCS 500-614230/2-A	Lab Control Sample	88	120
MB 500-614230/1-A	Method Blank	90	113

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-614230/1-A
Matrix: Solid
Analysis Batch: 614234

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614230

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		08/13/21 16:46	08/14/21 01:17			20
PCB-1221	<0.33		0.33		mg/Kg		08/13/21 16:46	08/14/21 01:17			20
PCB-1232	<0.33		0.33		mg/Kg		08/13/21 16:46	08/14/21 01:17			20
PCB-1242	<0.33		0.33		mg/Kg		08/13/21 16:46	08/14/21 01:17			20
PCB-1248	<0.33		0.33		mg/Kg		08/13/21 16:46	08/14/21 01:17			20
PCB-1254	<0.33		0.33		mg/Kg		08/13/21 16:46	08/14/21 01:17			20
PCB-1260	<0.33		0.33		mg/Kg		08/13/21 16:46	08/14/21 01:17			20

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	90		49 - 129	08/13/21 16:46	08/14/21 01:17			20
DCB Decachlorobiphenyl	113		37 - 121	08/13/21 16:46	08/14/21 01:17			20

Lab Sample ID: LCS 500-614230/2-A
Matrix: Solid
Analysis Batch: 614234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614230

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.53		mg/Kg		92	57 - 120	
PCB-1260	1.67	1.62		mg/Kg		97	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	88		49 - 129
DCB Decachlorobiphenyl	120		37 - 121

Lab Sample ID: 500-203812-1 MS
Matrix: Solid
Analysis Batch: 614234

Client Sample ID: ED-R1SL-001-3
Prep Type: Total/NA
Prep Batch: 614230

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.38		1.85	1.62		mg/Kg	☼	87	57 - 120	
PCB-1260	<0.38		1.85	1.77		mg/Kg	☼	95	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	80		49 - 129
DCB Decachlorobiphenyl	111		37 - 121

Lab Sample ID: 500-203812-1 MSD
Matrix: Solid
Analysis Batch: 614234

Client Sample ID: ED-R1SL-001-3
Prep Type: Total/NA
Prep Batch: 614230

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.38		1.84	1.56		mg/Kg	☼	85	57 - 120	4	30	
PCB-1260	<0.38		1.84	1.69		mg/Kg	☼	92	61 - 125	4	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	77		49 - 129
DCB Decachlorobiphenyl	118		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Client Sample ID: ED-R1SL-001-3

Lab Sample ID: 500-203812-1

Date Collected: 08/13/21 12:07

Matrix: Solid

Date Received: 08/13/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	614340	08/16/21 07:19	LWN	TAL CHI

Client Sample ID: ED-R1SL-001-3

Lab Sample ID: 500-203812-1

Date Collected: 08/13/21 12:07

Matrix: Solid

Date Received: 08/13/21 16:08

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			614230	08/13/21 16:46	JP1	TAL CHI
Total/NA	Analysis	8082A		20	614234	08/14/21 01:47	SS	TAL CHI

Client Sample ID: ED-R1SL-028-2

Lab Sample ID: 500-203812-2

Date Collected: 08/13/21 12:31

Matrix: Solid

Date Received: 08/13/21 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	614340	08/16/21 07:19	LWN	TAL CHI

Client Sample ID: ED-R1SL-028-2

Lab Sample ID: 500-203812-2

Date Collected: 08/13/21 12:31

Matrix: Solid

Date Received: 08/13/21 16:08

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			614230	08/13/21 16:46	JP1	TAL CHI
Total/NA	Analysis	8082A		20	614234	08/14/21 02:34	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203812-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



eurofins

Client Information			Sampler <i>G. Welch</i>	Lab PM: Kintz, Robin M	500-203812 COC	Carrier Tracking No(s):	COC No: 500-92290-41114 1				
Client Contact: Garrett Welch			Phone <i>865-440-1655</i>	E-Mail Robin.Kintz@Eurofinset.com	State of Origin: <i>IN</i>		Page: Page 1 of 1				
Company Civil & Environmental Consultants Inc			PWSID:		Analysis Requested						
Address: 2704 Cherokee Farm Way Suite 101			Due Date Requested:		Job #: <i>500-203812</i>						
City: Knoxville			TAT Requested (days): <i>RUSH - SAME DAY TURN</i>		Preservation Codes:						
State, Zip: TN, 37920			Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)						
Phone: 865-340-4914(Tel)			PO #: Purchase Order not required		Total Number of containers						
Email: <i>gwelch@cecinc.com</i>			WO #:								
Project Name: Arconic PCB Rush Project - Lafayette, IN			Project #: 50019033								
Site: <i>Ellicott Ditch - Lower Reach 1</i>			SSOW#:								
Sample Identification			Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MS (Yes or No)	8082A - PCBs	Special Instructions/Note:	
			Preservation Code:				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N		
<i>1</i> ED-RISL-001-3			<i>8/13/21</i>	<i>1207</i>	<i>C</i>	<i>S</i>				<i>1</i>	
<i>2</i> ED-RISL-028-2			<i>8/13/21</i>	<i>1231</i>	<i>C</i>	<i>S</i>				<i>1</i>	
Possible Hazard Identification			Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)								
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological			<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months								
Deliverable Requested: I, II, III, IV, Other (specify)			Special Instructions/QC Requirements.								
Empty Kit Relinquished by			Date:		Time:		Method of Shipment:				
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/13/21 1504</i>	Company: <i>CEL</i>	Received by: <i>[Signature]</i>		Date/Time: <i>8/13/21 1709</i>	Company: <i>ETA</i>			
Relinquished by: <i>[Signature]</i>			Date/Time: <i>8/13/21 1608</i>	Company: <i>ETA</i>	Received by: <i>Stephanie Hernandez</i>		Date/Time: <i>8/13/21 1608</i>	Company: <i>ETA-CH</i>			
Relinquished by:			Date/Time:	Company:	Received by:		Date/Time:	Company:			
Custody Seals Intact: <input type="checkbox"/> Custody Seal No.			Page 15 of 16			Cooler Temperature(s) °C and Other Remarks: <i>42 → 40</i>			8/16/2021		

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203812-1

Login Number: 203812

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

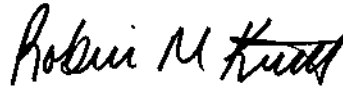
Laboratory Job ID: 500-203868-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/17/2021 2:21:49 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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QC Sample Results	11
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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Job ID: 500-203868-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-203868-1**

Comments

No additional comments.

Receipt

The sample was received on 8/16/2021 4:15 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

GC Semi VOA

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R1SL-049-02 (500-203868-1).

Method 8082A: The matrix spike (MS) recoveries for preparation batch 500-614502 and analytical batch 500-614516 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Client Sample ID: ED-R1SL-049-02

Lab Sample ID: 500-203868-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	1.7		0.38		mg/Kg	20	✳	8082A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

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Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203868-1	ED-R1SL-049-02	Solid	08/16/21 13:45	08/16/21 16:15

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Client Sample ID: ED-R1SL-049-02

Lab Sample ID: 500-203868-1

Date Collected: 08/16/21 13:45

Matrix: Solid

Date Received: 08/16/21 16:15

Percent Solids: 87.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38	F1	0.38		mg/Kg	☼	08/16/21 16:50	08/17/21 00:17	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/16/21 16:50	08/17/21 00:17	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/16/21 16:50	08/17/21 00:17	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/16/21 16:50	08/17/21 00:17	20
PCB-1248	1.7		0.38		mg/Kg	☼	08/16/21 16:50	08/17/21 00:17	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/16/21 16:50	08/17/21 00:17	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/16/21 16:50	08/17/21 00:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	99		49 - 129	08/16/21 16:50	08/17/21 00:17	20
DCB Decachlorobiphenyl	105		37 - 121	08/16/21 16:50	08/17/21 00:17	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

GC Semi VOA

Prep Batch: 614502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203868-1	ED-R1SL-049-02	Total/NA	Solid	3541	
MB 500-614502/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-614502/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-203868-1 MS	ED-R1SL-049-02	Total/NA	Solid	3541	
500-203868-1 MSD	ED-R1SL-049-02	Total/NA	Solid	3541	

Analysis Batch: 614516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203868-1	ED-R1SL-049-02	Total/NA	Solid	8082A	614502
MB 500-614502/1-A	Method Blank	Total/NA	Solid	8082A	614502
LCS 500-614502/2-A	Lab Control Sample	Total/NA	Solid	8082A	614502
500-203868-1 MS	ED-R1SL-049-02	Total/NA	Solid	8082A	614502
500-203868-1 MSD	ED-R1SL-049-02	Total/NA	Solid	8082A	614502

General Chemistry

Analysis Batch: 614534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203868-1	ED-R1SL-049-02	Total/NA	Solid	Moisture	
500-203868-1 DU	ED-R1SL-049-02	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203868-1	ED-R1SL-049-02	99	105
500-203868-1 MS	ED-R1SL-049-02	116	99
500-203868-1 MSD	ED-R1SL-049-02	93	99
LCS 500-614502/2-A	Lab Control Sample	95	100
MB 500-614502/1-A	Method Blank	103	108

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-614502/1-A
Matrix: Solid
Analysis Batch: 614516

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614502

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		08/16/21 16:50	08/16/21 23:46			20
PCB-1221	<0.33		0.33		mg/Kg		08/16/21 16:50	08/16/21 23:46			20
PCB-1232	<0.33		0.33		mg/Kg		08/16/21 16:50	08/16/21 23:46			20
PCB-1242	<0.33		0.33		mg/Kg		08/16/21 16:50	08/16/21 23:46			20
PCB-1248	<0.33		0.33		mg/Kg		08/16/21 16:50	08/16/21 23:46			20
PCB-1254	<0.33		0.33		mg/Kg		08/16/21 16:50	08/16/21 23:46			20
PCB-1260	<0.33		0.33		mg/Kg		08/16/21 16:50	08/16/21 23:46			20

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	103		49 - 129	08/16/21 16:50	08/16/21 23:46			20
DCB Decachlorobiphenyl	108		37 - 121	08/16/21 16:50	08/16/21 23:46			20

Lab Sample ID: LCS 500-614502/2-A
Matrix: Solid
Analysis Batch: 614516

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614502

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.35		mg/Kg		81	57 - 120	
PCB-1260	1.67	1.62		mg/Kg		97	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	95		49 - 129
DCB Decachlorobiphenyl	100		37 - 121

Lab Sample ID: 500-203868-1 MS
Matrix: Solid
Analysis Batch: 614516

Client Sample ID: ED-R1SL-049-02
Prep Type: Total/NA
Prep Batch: 614502

Analyte	Sample Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
	Result	Qualifier		Result	Qualifier					
PCB-1016	<0.38	F1	1.91	2.34	F1	mg/Kg	☼	123	57 - 120	
PCB-1260	<0.38		1.91	1.94		mg/Kg	☼	102	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	116		49 - 129
DCB Decachlorobiphenyl	99		37 - 121

Lab Sample ID: 500-203868-1 MSD
Matrix: Solid
Analysis Batch: 614516

Client Sample ID: ED-R1SL-049-02
Prep Type: Total/NA
Prep Batch: 614502

Analyte	Sample Sample		Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
	Result	Qualifier		Result	Qualifier						RPD	Limit
PCB-1016	<0.38	F1	1.90	2.20		mg/Kg	☼	116	57 - 120	4	30	
PCB-1260	<0.38		1.90	1.88		mg/Kg	☼	99	61 - 125	3	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	93		49 - 129
DCB Decachlorobiphenyl	99		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Client Sample ID: ED-R1SL-049-02

Lab Sample ID: 500-203868-1

Date Collected: 08/16/21 13:45

Matrix: Solid

Date Received: 08/16/21 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	614534	08/17/21 07:07	LWN	TAL CHI

Client Sample ID: ED-R1SL-049-02

Lab Sample ID: 500-203868-1

Date Collected: 08/16/21 13:45

Matrix: Solid

Date Received: 08/16/21 16:15

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			614502	08/16/21 16:50	ACK	TAL CHI
Total/NA	Analysis	8082A		20	614516	08/17/21 00:17	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203868-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park, IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record

eurofins

Client Information		Sampler: <u>J. O'Brien</u>		Lab PM: <u>Kintz, Robin M</u>		Carrier Tracking No(s):		COC No: <u>500-92290-41114 1</u>					
Client Contact: <u>Garrett Welch</u>		Phone: <u>865-409-8861</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin:		Page: <u>Page 1 of</u>					
Company: <u>Civil & Environmental Consultants Inc</u>		PWSID:		Analysis Requested						Job #: <u>500-203868</u>			
Address: <u>2704 Cherokee Farm Way Suite 101</u>		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs						Total Number of containers		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)	
City: <u>Knoxville</u>		TAT Requested (days):											
State, Zip: <u>TN, 37920</u>		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No											
Phone: <u>865-340-4914(Tel)</u> 500-203868 COC		PO #:											
Email: <u>gwelch@cecinc.com</u>		Purchase Order not required											
Project Name: <u>Arconic PCB Rush Project - Lafayette, IN</u>		Project #: <u>50019033</u>		WO #:		Project #:		SSOW#:					
Site:		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, A=Air)		Special Instructions/Note:			
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oli, BT=Tissue, A=Air)		Special Instructions/Note:			
<u>ED-21SL-049-02</u>		<u>8/16</u>		<u>13:45</u>		<u>C</u>		<u>S</u>		<u>1</u>			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months											
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:											
Empty Kit Relinquished by		Date:		Time:		Method of Shipment:							
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/16 1452 (EST)</u>		Company: <u>CEC</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/16/21</u>		Company: <u>ETA</u>			
Relinquished by: <u>[Signature]</u>		Date/Time: <u>8/16/21 1615 (CST)</u>		Company: <u>ETA</u>		Received by: <u>[Signature]</u>		Date/Time: <u>8/16/21 1615</u>		Company: <u>ETA-ETH</u>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:			
Custody Seals Intact. <input type="checkbox"/> Custody Seal No.		Page 14 of 15		Cooler Temperature(s) °C and Other Remarks: <u>25 → 2.3</u>									

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203868-1

Login Number: 203868

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-203971-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/19/2021 9:59:04 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Job ID: 500-203971-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-203971-1

Comments

No additional comments.

Receipt

The sample was received on 8/18/2021 12:30 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Client Sample ID: ED-R1SL-049-3

Lab Sample ID: 500-203971-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-203971-1	ED-R1SL-049-3	Solid	08/18/21 09:25	08/18/21 12:30

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Client Sample ID: ED-R1SL-049-3

Lab Sample ID: 500-203971-1

Date Collected: 08/18/21 09:25

Matrix: Solid

Date Received: 08/18/21 12:30

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/18/21 16:16	08/18/21 23:52	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/18/21 16:16	08/18/21 23:52	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/18/21 16:16	08/18/21 23:52	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/18/21 16:16	08/18/21 23:52	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/18/21 16:16	08/18/21 23:52	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/18/21 16:16	08/18/21 23:52	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/18/21 16:16	08/18/21 23:52	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	54		49 - 129	08/18/21 16:16	08/18/21 23:52	20
DCB Decachlorobiphenyl	68		37 - 121	08/18/21 16:16	08/18/21 23:52	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

GC Semi VOA

Prep Batch: 614929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203971-1	ED-R1SL-049-3	Total/NA	Solid	3541	
MB 500-614929/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-614929/2-A	Lab Control Sample	Total/NA	Solid	3541	

Analysis Batch: 614941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203971-1	ED-R1SL-049-3	Total/NA	Solid	8082A	614929
MB 500-614929/1-A	Method Blank	Total/NA	Solid	8082A	614929
LCS 500-614929/2-A	Lab Control Sample	Total/NA	Solid	8082A	614929

General Chemistry

Analysis Batch: 614921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-203971-1	ED-R1SL-049-3	Total/NA	Solid	Moisture	
500-203971-1 DU	ED-R1SL-049-3	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-203971-1	ED-R1SL-049-3	54	68
LCS 500-614929/2-A	Lab Control Sample	73	90
MB 500-614929/1-A	Method Blank	83	105

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-614929/1-A
Matrix: Solid
Analysis Batch: 614941

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 614929

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/18/21 16:16	08/18/21 23:21	20
PCB-1221	<0.33		0.33		mg/Kg		08/18/21 16:16	08/18/21 23:21	20
PCB-1232	<0.33		0.33		mg/Kg		08/18/21 16:16	08/18/21 23:21	20
PCB-1242	<0.33		0.33		mg/Kg		08/18/21 16:16	08/18/21 23:21	20
PCB-1248	<0.33		0.33		mg/Kg		08/18/21 16:16	08/18/21 23:21	20
PCB-1254	<0.33		0.33		mg/Kg		08/18/21 16:16	08/18/21 23:21	20
PCB-1260	<0.33		0.33		mg/Kg		08/18/21 16:16	08/18/21 23:21	20

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	83		49 - 129	08/18/21 16:16	08/18/21 23:21	20
DCB Decachlorobiphenyl	105		37 - 121	08/18/21 16:16	08/18/21 23:21	20

Lab Sample ID: LCS 500-614929/2-A
Matrix: Solid
Analysis Batch: 614941

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 614929

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.25		mg/Kg		75	57 - 120
PCB-1260	1.67	1.34		mg/Kg		80	61 - 125

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	73		49 - 129
DCB Decachlorobiphenyl	90		37 - 121

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Client Sample ID: ED-R1SL-049-3

Lab Sample ID: 500-203971-1

Date Collected: 08/18/21 09:25

Matrix: Solid

Date Received: 08/18/21 12:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	614921	08/18/21 15:50	LWN	TAL CHI

Client Sample ID: ED-R1SL-049-3

Lab Sample ID: 500-203971-1

Date Collected: 08/18/21 09:25

Matrix: Solid

Date Received: 08/18/21 12:30

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			614929	08/18/21 16:16	JP1	TAL CHI
Total/NA	Analysis	8082A		20	614941	08/18/21 23:52	PJ1	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-203971-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-203971-1

Login Number: 203971

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

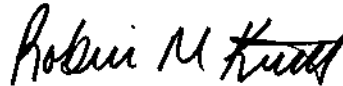
Laboratory Job ID: 500-204257-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/26/2021 2:53:01 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

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Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Job ID: 500-204257-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-204257-1**

Comments

No additional comments.

Receipt

The samples were received on 8/24/2021 4:14 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 7.1° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Client Sample ID: ED-R2SD-000

Lab Sample ID: 500-204257-1

No Detections.

Client Sample ID: ED-R2SD-001

Lab Sample ID: 500-204257-2

No Detections.

Client Sample ID: ED-R2SD-DUP001

Lab Sample ID: 500-204257-3

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204257-1	ED-R2SD-000	Solid	08/24/21 14:05	08/24/21 16:14
500-204257-2	ED-R2SD-001	Solid	08/24/21 14:45	08/24/21 16:14
500-204257-3	ED-R2SD-DUP001	Solid	08/24/21 00:00	08/24/21 16:14

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Client Sample ID: ED-R2SD-000

Lab Sample ID: 500-204257-1

Date Collected: 08/24/21 14:05

Matrix: Solid

Date Received: 08/24/21 16:14

Percent Solids: 83.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	08/25/21 15:51	08/26/21 03:01	20
PCB-1221	<0.40		0.40		mg/Kg	☼	08/25/21 15:51	08/26/21 03:01	20
PCB-1232	<0.40		0.40		mg/Kg	☼	08/25/21 15:51	08/26/21 03:01	20
PCB-1242	<0.40		0.40		mg/Kg	☼	08/25/21 15:51	08/26/21 03:01	20
PCB-1248	<0.40		0.40		mg/Kg	☼	08/25/21 15:51	08/26/21 03:01	20
PCB-1254	<0.40		0.40		mg/Kg	☼	08/25/21 15:51	08/26/21 03:01	20
PCB-1260	<0.40		0.40		mg/Kg	☼	08/25/21 15:51	08/26/21 03:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	08/25/21 15:51	08/26/21 03:01	20
DCB Decachlorobiphenyl	62		37 - 121	08/25/21 15:51	08/26/21 03:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Client Sample ID: ED-R2SD-001

Lab Sample ID: 500-204257-2

Date Collected: 08/24/21 14:45

Matrix: Solid

Date Received: 08/24/21 16:14

Percent Solids: 83.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/25/21 15:51	08/26/21 03:48	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/25/21 15:51	08/26/21 03:48	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/25/21 15:51	08/26/21 03:48	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/25/21 15:51	08/26/21 03:48	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/25/21 15:51	08/26/21 03:48	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/25/21 15:51	08/26/21 03:48	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/25/21 15:51	08/26/21 03:48	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	08/25/21 15:51	08/26/21 03:48	20
DCB Decachlorobiphenyl	75		37 - 121	08/25/21 15:51	08/26/21 03:48	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Client Sample ID: ED-R2SD-DUP001

Lab Sample ID: 500-204257-3

Date Collected: 08/24/21 00:00

Matrix: Solid

Date Received: 08/24/21 16:14

Percent Solids: 85.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/25/21 15:51	08/26/21 04:03	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/25/21 15:51	08/26/21 04:03	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/25/21 15:51	08/26/21 04:03	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/25/21 15:51	08/26/21 04:03	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/25/21 15:51	08/26/21 04:03	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/25/21 15:51	08/26/21 04:03	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/25/21 15:51	08/26/21 04:03	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	08/25/21 15:51	08/26/21 04:03	20
DCB Decachlorobiphenyl	71		37 - 121	08/25/21 15:51	08/26/21 04:03	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

GC Semi VOA

Analysis Batch: 615852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204257-1	ED-R2SD-000	Total/NA	Solid	8082A	615859
500-204257-2	ED-R2SD-001	Total/NA	Solid	8082A	615859
500-204257-3	ED-R2SD-DUP001	Total/NA	Solid	8082A	615859
MB 500-615859/1-A	Method Blank	Total/NA	Solid	8082A	615859
LCS 500-615859/2-A	Lab Control Sample	Total/NA	Solid	8082A	615859
500-204257-1 MS	ED-R2SD-000	Total/NA	Solid	8082A	615859
500-204257-1 MSD	ED-R2SD-000	Total/NA	Solid	8082A	615859

Prep Batch: 615859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204257-1	ED-R2SD-000	Total/NA	Solid	3541	
500-204257-2	ED-R2SD-001	Total/NA	Solid	3541	
500-204257-3	ED-R2SD-DUP001	Total/NA	Solid	3541	
MB 500-615859/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-615859/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-204257-1 MS	ED-R2SD-000	Total/NA	Solid	3541	
500-204257-1 MSD	ED-R2SD-000	Total/NA	Solid	3541	

General Chemistry

Analysis Batch: 615907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204257-1	ED-R2SD-000	Total/NA	Solid	Moisture	
500-204257-2	ED-R2SD-001	Total/NA	Solid	Moisture	
500-204257-3	ED-R2SD-DUP001	Total/NA	Solid	Moisture	
500-204257-1 DU	ED-R2SD-000	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-204257-1	ED-R2SD-000	71	62
500-204257-1 MS	ED-R2SD-000	72	60
500-204257-1 MSD	ED-R2SD-000	71	64
500-204257-2	ED-R2SD-001	71	75
500-204257-3	ED-R2SD-DUP001	67	71
LCS 500-615859/2-A	Lab Control Sample	84	74
MB 500-615859/1-A	Method Blank	98	85

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-615859/1-A
Matrix: Solid
Analysis Batch: 615852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615859

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30		20	
PCB-1221	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30		20	
PCB-1232	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30		20	
PCB-1242	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30		20	
PCB-1248	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30		20	
PCB-1254	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30		20	
PCB-1260	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	98		49 - 129	08/25/21 15:51	08/26/21 02:30		20	
DCB Decachlorobiphenyl	85		37 - 121	08/25/21 15:51	08/26/21 02:30		20	

Lab Sample ID: LCS 500-615859/2-A
Matrix: Solid
Analysis Batch: 615852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615859

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.39		mg/Kg		83	57 - 120	
PCB-1260	1.67	1.28		mg/Kg		77	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	84		49 - 129
DCB Decachlorobiphenyl	74		37 - 121

Lab Sample ID: 500-204257-1 MS
Matrix: Solid
Analysis Batch: 615852

Client Sample ID: ED-R2SD-000
Prep Type: Total/NA
Prep Batch: 615859

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.40		1.93	1.47		mg/Kg	☼	76	57 - 120	
PCB-1260	<0.40		1.93	1.36		mg/Kg	☼	71	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	72		49 - 129
DCB Decachlorobiphenyl	60		37 - 121

Lab Sample ID: 500-204257-1 MSD
Matrix: Solid
Analysis Batch: 615852

Client Sample ID: ED-R2SD-000
Prep Type: Total/NA
Prep Batch: 615859

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.40		1.91	1.37		mg/Kg	☼	72	57 - 120	7	30	
PCB-1260	<0.40		1.91	1.27		mg/Kg	☼	67	61 - 125	6	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	71		49 - 129
DCB Decachlorobiphenyl	64		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Client Sample ID: ED-R2SD-000

Lab Sample ID: 500-204257-1

Date Collected: 08/24/21 14:05

Matrix: Solid

Date Received: 08/24/21 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615907	08/26/21 06:41	LWN	TAL CHI

Client Sample ID: ED-R2SD-000

Lab Sample ID: 500-204257-1

Date Collected: 08/24/21 14:05

Matrix: Solid

Date Received: 08/24/21 16:14

Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			615859	08/25/21 15:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	615852	08/26/21 03:01	SS	TAL CHI

Client Sample ID: ED-R2SD-001

Lab Sample ID: 500-204257-2

Date Collected: 08/24/21 14:45

Matrix: Solid

Date Received: 08/24/21 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615907	08/26/21 06:41	LWN	TAL CHI

Client Sample ID: ED-R2SD-001

Lab Sample ID: 500-204257-2

Date Collected: 08/24/21 14:45

Matrix: Solid

Date Received: 08/24/21 16:14

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			615859	08/25/21 15:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	615852	08/26/21 03:48	SS	TAL CHI

Client Sample ID: ED-R2SD-DUP001

Lab Sample ID: 500-204257-3

Date Collected: 08/24/21 00:00

Matrix: Solid

Date Received: 08/24/21 16:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615907	08/26/21 06:41	LWN	TAL CHI

Client Sample ID: ED-R2SD-DUP001

Lab Sample ID: 500-204257-3

Date Collected: 08/24/21 00:00

Matrix: Solid

Date Received: 08/24/21 16:14

Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			615859	08/25/21 15:51	JP1	TAL CHI
Total/NA	Analysis	8082A		20	615852	08/26/21 04:03	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204257-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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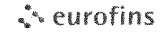
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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information					Sampler: <u>J O'Brien</u>		Lab PM Kintz, Robin M			Carrier Tracking No(s)			COC No: 500-92290-41114 1									
Client Contact: Garrett Welch					Phone: <u>865-407-8861</u>		E-Mail: Robin.Kintz@Eurofinset.com			State of Origin.			Page: Page 1 of									
Company Civil & Environmental Consultants Inc					PWSID		Analysis Requested										Job #: <u>500-204257</u>					
Address 2704 Cherokee Farm Way Suite 101					Due Date Requested					Field Filtered Sample (Yes or No)		Perform. MS/MSD (Yes or No)		8082A - PCBs		Total Number of containers		Preservation Codes A - HCL M Hexane B NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)				
City: Knoxville					TAT Requested (days)																	
State, Zip TN 37920					Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No																	
Phone: 865-340-4914(Tel)					PO # Purchase Order not required																	
Email gwelch@cecinc.com					WO #:					500-204257 COC												
Project Name: Arconic PCB Rush Project - Lafayette, IN					Project #: 50019033																	
Site:					SSOW#:					Special Instructions/Note												
Sample Identification					Sample Date		Sample Time		Sample Type (C=comp, G=grab)									Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform. MS/MSD (Yes or No)
					<u>8/24</u>		<u>1405</u>		<u>G</u>		<u>S</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				<u>3</u>			
					<u>8/24</u>		<u>1405</u>		<u>G</u>		<u>S</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>							
					<u>8/24</u>		<u>-</u>		<u>-</u>		<u>S</u>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>							
Possible Hazard Identification					<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)										
Deliverable Requested I, II, III, IV, Other (specify)					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							Special Instructions/QC Requirements										
Empty Kit Relinquished by:			Date			Time			Method of Shipment:													
Relinquished by: <u>Garrett Welch</u>			Date/Time: <u>8/24/1500</u>			Company			Received by: <u>A Neal</u>			Date/Time: <u>8/24/21 1500</u>		Company: <u>EVA</u>								
Relinquished by: <u>A Neal</u>			Date/Time: <u>8/24/21 1614</u>			Company			Received by: <u>Shirley Scott</u>			Date/Time: <u>8/24/21 1614</u>		Company: <u>BAI-ATI</u>								
Relinquished by:			Date/Time:			Company			Received by:			Date/Time:		Company								
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No																				

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204257-1

Login Number: 204257

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	7.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-204308-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/26/2021 2:54:30 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Job ID: 500-204308-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-204308-1**

Comments

No additional comments.

Receipt

The samples were received on 8/25/2021 4:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.1° C.

GC Semi VOA

Method 8082A: The following sample(s) contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1248: ED-R2SD-003 (500-204308-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Client Sample ID: ED-R2SD-002

Lab Sample ID: 500-204308-1

No Detections.

Client Sample ID: ED-R2SD-003

Lab Sample ID: 500-204308-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	0.45		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R2SD-004

Lab Sample ID: 500-204308-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204308-1	ED-R2SD-002	Solid	08/25/21 12:10	08/25/21 16:05
500-204308-2	ED-R2SD-003	Solid	08/25/21 12:15	08/25/21 16:05
500-204308-3	ED-R2SD-004	Solid	08/25/21 14:30	08/25/21 16:05

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Client Sample ID: ED-R2SD-002

Lab Sample ID: 500-204308-1

Date Collected: 08/25/21 12:10

Matrix: Solid

Date Received: 08/25/21 16:05

Percent Solids: 81.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:18	20
PCB-1221	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:18	20
PCB-1232	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:18	20
PCB-1242	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:18	20
PCB-1248	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:18	20
PCB-1254	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:18	20
PCB-1260	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	70		49 - 129	08/25/21 16:18	08/26/21 04:18	20
DCB Decachlorobiphenyl	67		37 - 121	08/25/21 16:18	08/26/21 04:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Client Sample ID: ED-R2SD-003

Lab Sample ID: 500-204308-2

Date Collected: 08/25/21 12:15

Matrix: Solid

Date Received: 08/25/21 16:05

Percent Solids: 82.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:34	20
PCB-1221	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:34	20
PCB-1232	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:34	20
PCB-1242	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:34	20
PCB-1248	0.45		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:34	20
PCB-1254	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:34	20
PCB-1260	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/25/21 16:18	08/26/21 04:34	20
DCB Decachlorobiphenyl	69		37 - 121	08/25/21 16:18	08/26/21 04:34	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Client Sample ID: ED-R2SD-004

Lab Sample ID: 500-204308-3

Date Collected: 08/25/21 14:30

Matrix: Solid

Date Received: 08/25/21 16:05

Percent Solids: 80.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:49	20
PCB-1221	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:49	20
PCB-1232	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:49	20
PCB-1242	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:49	20
PCB-1248	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:49	20
PCB-1254	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:49	20
PCB-1260	<0.40		0.40		mg/Kg	☼	08/25/21 16:18	08/26/21 04:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/25/21 16:18	08/26/21 04:49	20
DCB Decachlorobiphenyl	59		37 - 121	08/25/21 16:18	08/26/21 04:49	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

GC Semi VOA

Analysis Batch: 615852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204308-1	ED-R2SD-002	Total/NA	Solid	8082A	615859
500-204308-2	ED-R2SD-003	Total/NA	Solid	8082A	615859
500-204308-3	ED-R2SD-004	Total/NA	Solid	8082A	615859
MB 500-615859/1-A	Method Blank	Total/NA	Solid	8082A	615859
LCS 500-615859/2-A	Lab Control Sample	Total/NA	Solid	8082A	615859

Prep Batch: 615859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204308-1	ED-R2SD-002	Total/NA	Solid	3541	
500-204308-2	ED-R2SD-003	Total/NA	Solid	3541	
500-204308-3	ED-R2SD-004	Total/NA	Solid	3541	
MB 500-615859/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-615859/2-A	Lab Control Sample	Total/NA	Solid	3541	

General Chemistry

Analysis Batch: 615907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204308-1	ED-R2SD-002	Total/NA	Solid	Moisture	
500-204308-2	ED-R2SD-003	Total/NA	Solid	Moisture	
500-204308-3	ED-R2SD-004	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-204308-1	ED-R2SD-002	70	67
500-204308-2	ED-R2SD-003	77	69
500-204308-3	ED-R2SD-004	77	59
LCS 500-615859/2-A	Lab Control Sample	84	74
MB 500-615859/1-A	Method Blank	98	85

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-615859/1-A
Matrix: Solid
Analysis Batch: 615852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 615859

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30			20
PCB-1221	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30			20
PCB-1232	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30			20
PCB-1242	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30			20
PCB-1248	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30			20
PCB-1254	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30			20
PCB-1260	<0.33		0.33		mg/Kg		08/25/21 15:51	08/26/21 02:30			20

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	98		49 - 129	08/25/21 15:51		08/26/21 02:30		20
DCB Decachlorobiphenyl	85		37 - 121	08/25/21 15:51		08/26/21 02:30		20

Lab Sample ID: LCS 500-615859/2-A
Matrix: Solid
Analysis Batch: 615852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 615859

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.39		mg/Kg		83	57 - 120	
PCB-1260	1.67	1.28		mg/Kg		77	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	84		49 - 129
DCB Decachlorobiphenyl	74		37 - 121

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Client Sample ID: ED-R2SD-002

Lab Sample ID: 500-204308-1

Date Collected: 08/25/21 12:10

Matrix: Solid

Date Received: 08/25/21 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615907	08/26/21 06:41	LWN	TAL CHI

Client Sample ID: ED-R2SD-002

Lab Sample ID: 500-204308-1

Date Collected: 08/25/21 12:10

Matrix: Solid

Date Received: 08/25/21 16:05

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			615859	08/25/21 16:18	JP1	TAL CHI
Total/NA	Analysis	8082A		20	615852	08/26/21 04:18	SS	TAL CHI

Client Sample ID: ED-R2SD-003

Lab Sample ID: 500-204308-2

Date Collected: 08/25/21 12:15

Matrix: Solid

Date Received: 08/25/21 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615907	08/26/21 06:41	LWN	TAL CHI

Client Sample ID: ED-R2SD-003

Lab Sample ID: 500-204308-2

Date Collected: 08/25/21 12:15

Matrix: Solid

Date Received: 08/25/21 16:05

Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			615859	08/25/21 16:18	JP1	TAL CHI
Total/NA	Analysis	8082A		20	615852	08/26/21 04:34	SS	TAL CHI

Client Sample ID: ED-R2SD-004

Lab Sample ID: 500-204308-3

Date Collected: 08/25/21 14:30

Matrix: Solid

Date Received: 08/25/21 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	615907	08/26/21 06:41	LWN	TAL CHI

Client Sample ID: ED-R2SD-004

Lab Sample ID: 500-204308-3

Date Collected: 08/25/21 14:30

Matrix: Solid

Date Received: 08/25/21 16:05

Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			615859	08/25/21 16:18	JP1	TAL CHI
Total/NA	Analysis	8082A		20	615852	08/26/21 04:49	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204308-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information			Sampler: <i>J. O'Brien</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s): 500-204308 COC		Page: 1		
Client Contact: Garrett Welch			Phone: <i>865-407-8961</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: Page 1 of		
Company: Civil & Environmental Consultants Inc			PWSID:		Analysis Requested					Job # <i>500-204308</i>	
Address: 2704 Cherokee Farm Way Suite 101			Due Date Requested:		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Preservation Codes A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)		
City: Knoxville			TAT Requested (days):								
State Zip: TN 37920			Compliance Project. <input type="checkbox"/> Yes <input type="checkbox"/> No								
Phone: 865-340-4914(Tel)			PO #: Purchase Order not required								
Email: gwelch@cecinc.com			WO #:		Special Instructions/Note						
Project Name: Arconic PCB Rush Project - Lafayette, IN			Project #: 50019033								
Site:			SSOW#:								
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8082A - PCBs	Total Number of containers	Special Instructions/Note	
				Preservation Code:		X	N		X		
<i>1</i>	ED-R25D-002	8/25/21	1210	C	S	X					
<i>2</i>	ED-R25D-003	8/25/21	1215	C	S	X					
<i>3</i>	ED-R25D-004	8/25/21	1430	C	S	X					
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I, II, III, IV Other (specify)					Special Instructions/QC Requirements						
Empty Kit Relinquished by:		Date		Time		Method of Shipment:					
Relinquished by: <i>[Signature]</i>		Date/Time: 8/25 / <i>1500</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: 8/25/21 / <i>1520</i>		Company: <i>ETA</i>	
Relinquished by: <i>[Signature]</i>		Date/Time: 8/25/21 / <i>1605</i>		Company: <i>ETA</i>		Received by: <i>[Signature]</i>		Date/Time: 8/25/21 / <i>1605</i>		Company: <i>ETA</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No:		Page 16 of 17		Cooler Temperature(s) °C and Other Remarks: <i>5.3 - 25.2 - 5.1</i>			8/26/2021		

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204308-1

Login Number: 204308

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-204383-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/27/2021 1:54:27 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Job ID: 500-204383-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-204383-1

Comments

No additional comments.

Receipt

The samples were received on 8/26/2021 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 7.2° C.

GC Semi VOA

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following sample was outside control limits: ED-R2SD-005 (500-204383-2). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Client Sample ID: ED-R2SD-005

Lab Sample ID: 500-204383-2

No Detections.

Client Sample ID: ED-R2SD-011

Lab Sample ID: 500-204383-3

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204383-2	ED-R2SD-005	Solid	08/26/21 09:30	08/26/21 16:03
500-204383-3	ED-R2SD-011	Solid	08/26/21 14:45	08/26/21 16:03

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Client Sample ID: ED-R2SD-005

Lab Sample ID: 500-204383-2

Date Collected: 08/26/21 09:30

Matrix: Solid

Date Received: 08/26/21 16:03

Percent Solids: 79.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.42		0.42		mg/Kg	☼	08/26/21 16:50	08/27/21 01:25	20
PCB-1221	<0.42		0.42		mg/Kg	☼	08/26/21 16:50	08/27/21 01:25	20
PCB-1232	<0.42		0.42		mg/Kg	☼	08/26/21 16:50	08/27/21 01:25	20
PCB-1242	<0.42		0.42		mg/Kg	☼	08/26/21 16:50	08/27/21 01:25	20
PCB-1248	<0.42		0.42		mg/Kg	☼	08/26/21 16:50	08/27/21 01:25	20
PCB-1254	<0.42		0.42		mg/Kg	☼	08/26/21 16:50	08/27/21 01:25	20
PCB-1260	<0.42		0.42		mg/Kg	☼	08/26/21 16:50	08/27/21 01:25	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	46	S1-	49 - 129	08/26/21 16:50	08/27/21 01:25	20
DCB Decachlorobiphenyl	39		37 - 121	08/26/21 16:50	08/27/21 01:25	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Client Sample ID: ED-R2SD-011

Lab Sample ID: 500-204383-3

Date Collected: 08/26/21 14:45

Matrix: Solid

Date Received: 08/26/21 16:03

Percent Solids: 87.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/26/21 16:50	08/27/21 01:41	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/26/21 16:50	08/27/21 01:41	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/26/21 16:50	08/27/21 01:41	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/26/21 16:50	08/27/21 01:41	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/26/21 16:50	08/27/21 01:41	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/26/21 16:50	08/27/21 01:41	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/26/21 16:50	08/27/21 01:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		49 - 129	08/26/21 16:50	08/27/21 01:41	20
DCB Decachlorobiphenyl	82		37 - 121	08/26/21 16:50	08/27/21 01:41	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

GC Semi VOA

Prep Batch: 616074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204383-2	ED-R2SD-005	Total/NA	Solid	3541	
500-204383-3	ED-R2SD-011	Total/NA	Solid	3541	
MB 500-616074/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-616074/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-204383-3 MS	ED-R2SD-011	Total/NA	Solid	3541	
500-204383-3 MSD	ED-R2SD-011	Total/NA	Solid	3541	

Analysis Batch: 616095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204383-2	ED-R2SD-005	Total/NA	Solid	8082A	616074
500-204383-3	ED-R2SD-011	Total/NA	Solid	8082A	616074
MB 500-616074/1-A	Method Blank	Total/NA	Solid	8082A	616074
LCS 500-616074/2-A	Lab Control Sample	Total/NA	Solid	8082A	616074
500-204383-3 MS	ED-R2SD-011	Total/NA	Solid	8082A	616074
500-204383-3 MSD	ED-R2SD-011	Total/NA	Solid	8082A	616074

General Chemistry

Analysis Batch: 616135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204383-2	ED-R2SD-005	Total/NA	Solid	Moisture	
500-204383-3	ED-R2SD-011	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-204383-2	ED-R2SD-005	46 S1-	39
500-204383-3	ED-R2SD-011	64	82
500-204383-3 MS	ED-R2SD-011	64	78
500-204383-3 MSD	ED-R2SD-011	58	71
LCS 500-616074/2-A	Lab Control Sample	64	76
MB 500-616074/1-A	Method Blank	81	99

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-616074/1-A
Matrix: Solid
Analysis Batch: 616095

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616074

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		08/26/21 16:50	08/27/21 00:53		20	
PCB-1221	<0.33		0.33		mg/Kg		08/26/21 16:50	08/27/21 00:53		20	
PCB-1232	<0.33		0.33		mg/Kg		08/26/21 16:50	08/27/21 00:53		20	
PCB-1242	<0.33		0.33		mg/Kg		08/26/21 16:50	08/27/21 00:53		20	
PCB-1248	<0.33		0.33		mg/Kg		08/26/21 16:50	08/27/21 00:53		20	
PCB-1254	<0.33		0.33		mg/Kg		08/26/21 16:50	08/27/21 00:53		20	
PCB-1260	<0.33		0.33		mg/Kg		08/26/21 16:50	08/27/21 00:53		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	81		49 - 129	08/26/21 16:50	08/27/21 00:53		20	
DCB Decachlorobiphenyl	99		37 - 121	08/26/21 16:50	08/27/21 00:53		20	

Lab Sample ID: LCS 500-616074/2-A
Matrix: Solid
Analysis Batch: 616095

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616074

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.31		mg/Kg		79	57 - 120	
PCB-1260	1.67	1.46		mg/Kg		87	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	64		49 - 129
DCB Decachlorobiphenyl	76		37 - 121

Lab Sample ID: 500-204383-3 MS
Matrix: Solid
Analysis Batch: 616095

Client Sample ID: ED-R2SD-011
Prep Type: Total/NA
Prep Batch: 616074

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.38		1.88	1.46		mg/Kg	☼	78	57 - 120	
PCB-1260	<0.38		1.88	1.60		mg/Kg	☼	85	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	64		49 - 129
DCB Decachlorobiphenyl	78		37 - 121

Lab Sample ID: 500-204383-3 MSD
Matrix: Solid
Analysis Batch: 616095

Client Sample ID: ED-R2SD-011
Prep Type: Total/NA
Prep Batch: 616074

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.38		1.88	1.31		mg/Kg	☼	70	57 - 120	10	30	
PCB-1260	<0.38		1.88	1.44		mg/Kg	☼	77	61 - 125	10	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	58		49 - 129
DCB Decachlorobiphenyl	71		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Client Sample ID: ED-R2SD-005

Lab Sample ID: 500-204383-2

Date Collected: 08/26/21 09:30

Matrix: Solid

Date Received: 08/26/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616135	08/27/21 08:03	LWN	TAL CHI

Client Sample ID: ED-R2SD-005

Lab Sample ID: 500-204383-2

Date Collected: 08/26/21 09:30

Matrix: Solid

Date Received: 08/26/21 16:03

Percent Solids: 79.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616074	08/26/21 16:50	ACK	TAL CHI
Total/NA	Analysis	8082A		20	616095	08/27/21 01:25	JB	TAL CHI

Client Sample ID: ED-R2SD-011

Lab Sample ID: 500-204383-3

Date Collected: 08/26/21 14:45

Matrix: Solid

Date Received: 08/26/21 16:03

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616135	08/27/21 08:03	LWN	TAL CHI

Client Sample ID: ED-R2SD-011

Lab Sample ID: 500-204383-3

Date Collected: 08/26/21 14:45

Matrix: Solid

Date Received: 08/26/21 16:03

Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616074	08/26/21 16:50	ACK	TAL CHI
Total/NA	Analysis	8082A		20	616095	08/27/21 01:41	JB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



500-204383 COC

Client Information		Sampler: <u>J O'Brien</u>		Lab PM: <u>Kintz, Robin M</u>		Carrier Tracking No(s)		500-92290-41114 1	
Client Contact: <u>Garrett Welch</u>		Phone: <u>865-407-8801</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin		Page: <u>Page 1 of</u>	
Company: <u>Civil & Environmental Consultants Inc</u>				PWSID		Analysis Requested			
Address: <u>2704 Cherokee Farm Way Suite 101</u>				Due Date Requested		Job #: <u>500-204383</u> Preservation Codes: A - HCL M Hexane B - NaOH N - None C - Zn Acetate O AsNaO2 D - Nitric Acid P Na2O4S E - NaHSO4 Q Na2SO3 F - MeOH R Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U Acetone J - DI Water V MCAA K - EDTA W pH 4-5 L - EDA Z other (specify)			
City: <u>Knoxville</u>				TAT Requested (days)					
State/Zip: <u>TN 37920</u>				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: <u>865-340-4914(Tel)</u>				PO #					
Email: <u>gwelch@cecinc.com</u>				Purchase Order not required					
Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>				Project #: <u>50019033</u>		Total Number of Containers			
Site:				SSOW#					
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Special Instructions/Note	
								Preservation Code	
<u>1</u>	<u>ED-R2SD-8801</u>	<u>8/25</u>	<u>1600</u>	<u>G</u>	<u>W</u>		<u>X</u>	<u>N</u>	<u>2</u>
<u>2</u>	<u>ED-R2SD-005</u>	<u>8/26</u>	<u>0930</u>	<u>C</u>	<u>S</u>		<u>X</u>		<u>1</u>
<u>3</u>	<u>ED-R2SD-011</u>	<u>8/26</u>	<u>1445</u>	<u>C</u>	<u>S</u>		<u>X</u>		<u>1</u>
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological									
Deliverable Requested I, II, III, IV, Other (specify)					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____					Special Instructions/QC Requirements				
Relinquished by: <u>P. Neal</u>		Date/Time: <u>8/26/21 1500</u>		Company: _____		Received by: <u>P. Neal</u>		Date/Time: <u>8/26/21 1500</u> Company: <u>EK</u>	
Relinquished by: _____		Date/Time: <u>8/26/21 1603</u>		Company: <u>EK</u>		Received by: <u>J. Neal</u>		Date/Time: <u>8/26/21 1603</u> Company: <u>EJK</u>	
Relinquished by: _____		Date/Time: _____		Company: _____		Received by: _____		Date/Time: _____ Company: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks		7.2		8/27/2021	



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204383-1

Login Number: 204383

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	7.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200


Laboratory Job ID: 500-204383-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/31/2021 3:14:20 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Job ID: 500-204383-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-204383-2

Comments

No additional comments.

Receipt

The samples were received on 8/26/2021 4:03 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 7.2° C.

GC Semi VOA

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: ED-R2SD-EB01 (500-204383-1) and (CCVIS 500-616308/1). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following sample was outside control limits: ED-R2SD-EB01 (500-204383-1). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Client Sample ID: ED-R2SD-EB01

Lab Sample ID: 500-204383-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204383-1	ED-R2SD-EB01	Water	08/25/21 16:00	08/26/21 16:03

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Client Sample ID: ED-R2SD-EB01

Lab Sample ID: 500-204383-1

Date Collected: 08/25/21 16:00

Matrix: Water

Date Received: 08/26/21 16:03

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00042		0.00042		mg/L		08/27/21 07:55	08/27/21 20:31	1
PCB-1221	<0.00042		0.00042		mg/L		08/27/21 07:55	08/27/21 20:31	1
PCB-1232	<0.00042		0.00042		mg/L		08/27/21 07:55	08/27/21 20:31	1
PCB-1242	<0.00042		0.00042		mg/L		08/27/21 07:55	08/27/21 20:31	1
PCB-1248	<0.00042		0.00042		mg/L		08/27/21 07:55	08/27/21 20:31	1
PCB-1254	<0.00042		0.00042		mg/L		08/27/21 07:55	08/27/21 20:31	1
PCB-1260	<0.00042		0.00042		mg/L		08/27/21 07:55	08/27/21 20:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	58		30 - 120	08/27/21 07:55	08/27/21 20:31	1
DCB Decachlorobiphenyl	25	S1-	30 - 140	08/27/21 07:55	08/27/21 20:31	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

GC Semi VOA

Prep Batch: 616172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204383-1	ED-R2SD-EB01	Total/NA	Water	3510C	
MB 500-616172/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-616172/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-616172/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 616308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204383-1	ED-R2SD-EB01	Total/NA	Water	8082A	616172
MB 500-616172/1-A	Method Blank	Total/NA	Water	8082A	616172
LCS 500-616172/4-A	Lab Control Sample	Total/NA	Water	8082A	616172
LCSD 500-616172/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	616172

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-204383-1	ED-R2SD-EB01	58	25 S1-
LCS 500-616172/4-A	Lab Control Sample	42	70
LCSD 500-616172/5-A	Lab Control Sample Dup	50	74
MB 500-616172/1-A	Method Blank	36	96

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-616172/1-A
Matrix: Water
Analysis Batch: 616308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		08/27/21 07:55	08/27/21 19:43	1
PCB-1221	<0.00040		0.00040		mg/L		08/27/21 07:55	08/27/21 19:43	1
PCB-1232	<0.00040		0.00040		mg/L		08/27/21 07:55	08/27/21 19:43	1
PCB-1242	<0.00040		0.00040		mg/L		08/27/21 07:55	08/27/21 19:43	1
PCB-1248	<0.00040		0.00040		mg/L		08/27/21 07:55	08/27/21 19:43	1
PCB-1254	<0.00040		0.00040		mg/L		08/27/21 07:55	08/27/21 19:43	1
PCB-1260	<0.00040		0.00040		mg/L		08/27/21 07:55	08/27/21 19:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	36		30 - 120	08/27/21 07:55	08/27/21 19:43	1
DCB Decachlorobiphenyl	96		30 - 140	08/27/21 07:55	08/27/21 19:43	1

Lab Sample ID: LCS 500-616172/4-A
Matrix: Water
Analysis Batch: 616308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00275		mg/L		69	56 - 120
PCB-1260	0.00400	0.00301		mg/L		75	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	42		30 - 120
DCB Decachlorobiphenyl	70		30 - 140

Lab Sample ID: LCSD 500-616172/5-A
Matrix: Water
Analysis Batch: 616308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 616172

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00302		mg/L		76	56 - 120	9	20
PCB-1260	0.00400	0.00329		mg/L		82	53 - 137	9	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	50		30 - 120
DCB Decachlorobiphenyl	74		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Client Sample ID: ED-R2SD-EB01

Lab Sample ID: 500-204383-1

Date Collected: 08/25/21 16:00

Matrix: Water

Date Received: 08/26/21 16:03

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			616172	08/27/21 07:55	SB	TAL CHI
Total/NA	Analysis	8082A		1	616308	08/27/21 20:31	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204383-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



500-204383 COC

Client Information		Sampler: <u>J O'Brien</u>		Lab PM: <u>Kintz, Robin M</u>		Carrier Tracking No(s)		500-92290-41114 1	
Client Contact: <u>Garrett Welch</u>		Phone: <u>865-407-8801</u>		E-Mail: <u>Robin.Kintz@Eurofinset.com</u>		State of Origin		Page: <u>1</u> of <u>1</u>	
Company: <u>Civil & Environmental Consultants Inc</u>				PWSID		Analysis Requested			
Address: <u>2704 Cherokee Farm Way Suite 101</u>				Due Date Requested		Job #: <u>500-204383</u> Preservation Codes: A - HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)			
City: <u>Knoxville</u>				TAT Requested (days)					
State/Zip: <u>TN 37920</u>				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: <u>865-340-4914(Tel)</u>				PO #					
Email: <u>gwelch@cecinc.com</u>				Purchase Order not required					
Project Name: <u>Arconic PCB Rush Project - Lafayette IN</u>				Project #: <u>50019033</u>					
Site:				SSOW#:		Total Number of containers			
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Special Instructions/Note	
								Preservation Code	
<u>1 ED-R2SD-8801</u>		<u>8/25</u>	<u>1600</u>	<u>G</u>	<u>W</u>		<u>X</u>	<u>2</u>	
<u>2 ED-R2SD-005</u>		<u>8/26</u>	<u>0930</u>	<u>C</u>	<u>S</u>		<u>X</u>	<u>1</u>	
<u>3 ED-R2SD-011</u>		<u>8/26</u>	<u>1445</u>	<u>C</u>	<u>S</u>		<u>X</u>	<u>1</u>	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Deliverable Requested I, II, III, IV, Other (specify)						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Empty Kit Relinquished by:		Date	Time	Method of Shipment:					
Relinquished by: <u>P. Neal</u>		Date/Time: <u>8/26/21 1500</u>	Company: <u>ETA</u>	Received by: <u>P. Neal</u>		Date/Time: <u>8/26/21 1500</u>	Company: <u>ETA</u>		
Relinquished by: <u>P. Neal</u>		Date/Time: <u>8/26/21 1603</u>	Company: <u>ETA</u>	Received by: <u>J. Neal</u>		Date/Time: <u>8/26/21 1603</u>	Company: <u>ETA</u>		
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: <u>F.R</u>					



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204383-2

Login Number: 204383

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	7.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-204463-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
8/30/2021 3:14:11 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Job ID: 500-204463-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-204463-1**

Comments

No additional comments.

Receipt

The samples were received on 8/27/2021 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The COC lists sample -3 as a solid but it is a water and we received two jars.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Client Sample ID: ED-R2SD-010

Lab Sample ID: 500-204463-1

No Detections.

Client Sample ID: ED-R2SD-012

Lab Sample ID: 500-204463-2

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204463-1	ED-R2SD-010	Solid	08/27/21 11:00	08/27/21 16:20
500-204463-2	ED-R2SD-012	Solid	08/27/21 12:10	08/27/21 16:20

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Client Sample ID: ED-R2SD-010

Lab Sample ID: 500-204463-1

Date Collected: 08/27/21 11:00

Matrix: Solid

Date Received: 08/27/21 16:20

Percent Solids: 86.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.39		0.39		mg/Kg	☼	08/27/21 17:26	08/28/21 00:52	20
PCB-1221	<0.39		0.39		mg/Kg	☼	08/27/21 17:26	08/28/21 00:52	20
PCB-1232	<0.39		0.39		mg/Kg	☼	08/27/21 17:26	08/28/21 00:52	20
PCB-1242	<0.39		0.39		mg/Kg	☼	08/27/21 17:26	08/28/21 00:52	20
PCB-1248	<0.39		0.39		mg/Kg	☼	08/27/21 17:26	08/28/21 00:52	20
PCB-1254	<0.39		0.39		mg/Kg	☼	08/27/21 17:26	08/28/21 00:52	20
PCB-1260	<0.39		0.39		mg/Kg	☼	08/27/21 17:26	08/28/21 00:52	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	64		49 - 129	08/27/21 17:26	08/28/21 00:52	20
DCB Decachlorobiphenyl	70		37 - 121	08/27/21 17:26	08/28/21 00:52	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Client Sample ID: ED-R2SD-012

Lab Sample ID: 500-204463-2

Date Collected: 08/27/21 12:10

Matrix: Solid

Date Received: 08/27/21 16:20

Percent Solids: 86.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	08/27/21 17:26	08/28/21 01:38	20
PCB-1221	<0.38		0.38		mg/Kg	☼	08/27/21 17:26	08/28/21 01:38	20
PCB-1232	<0.38		0.38		mg/Kg	☼	08/27/21 17:26	08/28/21 01:38	20
PCB-1242	<0.38		0.38		mg/Kg	☼	08/27/21 17:26	08/28/21 01:38	20
PCB-1248	<0.38		0.38		mg/Kg	☼	08/27/21 17:26	08/28/21 01:38	20
PCB-1254	<0.38		0.38		mg/Kg	☼	08/27/21 17:26	08/28/21 01:38	20
PCB-1260	<0.38		0.38		mg/Kg	☼	08/27/21 17:26	08/28/21 01:38	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		49 - 129	08/27/21 17:26	08/28/21 01:38	20
DCB Decachlorobiphenyl	95		37 - 121	08/27/21 17:26	08/28/21 01:38	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

GC Semi VOA

Prep Batch: 616299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204463-1	ED-R2SD-010	Total/NA	Solid	3541	
500-204463-2	ED-R2SD-012	Total/NA	Solid	3541	
MB 500-616299/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-616299/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-204463-1 MS	ED-R2SD-010	Total/NA	Solid	3541	
500-204463-1 MSD	ED-R2SD-010	Total/NA	Solid	3541	

Analysis Batch: 616316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204463-1	ED-R2SD-010	Total/NA	Solid	8082A	616299
500-204463-2	ED-R2SD-012	Total/NA	Solid	8082A	616299
MB 500-616299/1-A	Method Blank	Total/NA	Solid	8082A	616299
LCS 500-616299/2-A	Lab Control Sample	Total/NA	Solid	8082A	616299
500-204463-1 MS	ED-R2SD-010	Total/NA	Solid	8082A	616299
500-204463-1 MSD	ED-R2SD-010	Total/NA	Solid	8082A	616299

General Chemistry

Analysis Batch: 616370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204463-1	ED-R2SD-010	Total/NA	Solid	Moisture	
500-204463-2	ED-R2SD-012	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-204463-1	ED-R2SD-010	64	70
500-204463-1 MS	ED-R2SD-010	79	82
500-204463-1 MSD	ED-R2SD-010	76	75
500-204463-2	ED-R2SD-012	77	95
LCS 500-616299/2-A	Lab Control Sample	93	90
MB 500-616299/1-A	Method Blank	97	100

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-616299/1-A
Matrix: Solid
Analysis Batch: 616316

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616299

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/27/21 17:26	08/28/21 00:21	20
PCB-1221	<0.33		0.33		mg/Kg		08/27/21 17:26	08/28/21 00:21	20
PCB-1232	<0.33		0.33		mg/Kg		08/27/21 17:26	08/28/21 00:21	20
PCB-1242	<0.33		0.33		mg/Kg		08/27/21 17:26	08/28/21 00:21	20
PCB-1248	<0.33		0.33		mg/Kg		08/27/21 17:26	08/28/21 00:21	20
PCB-1254	<0.33		0.33		mg/Kg		08/27/21 17:26	08/28/21 00:21	20
PCB-1260	<0.33		0.33		mg/Kg		08/27/21 17:26	08/28/21 00:21	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	97		49 - 129	08/27/21 17:26	08/28/21 00:21	20
DCB Decachlorobiphenyl	100		37 - 121	08/27/21 17:26	08/28/21 00:21	20

Lab Sample ID: LCS 500-616299/2-A
Matrix: Solid
Analysis Batch: 616316

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616299

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.49		mg/Kg		90	57 - 120
PCB-1260	1.67	1.55		mg/Kg		93	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	93		49 - 129
DCB Decachlorobiphenyl	90		37 - 121

Lab Sample ID: 500-204463-1 MS
Matrix: Solid
Analysis Batch: 616316

Client Sample ID: ED-R2SD-010
Prep Type: Total/NA
Prep Batch: 616299

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.39		1.92	1.67		mg/Kg	☼	87	57 - 120
PCB-1260	<0.39		1.92	1.70		mg/Kg	☼	88	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	79		49 - 129
DCB Decachlorobiphenyl	82		37 - 121

Lab Sample ID: 500-204463-1 MSD
Matrix: Solid
Analysis Batch: 616316

Client Sample ID: ED-R2SD-010
Prep Type: Total/NA
Prep Batch: 616299

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.39		1.92	1.55		mg/Kg	☼	81	57 - 120	7	30
PCB-1260	<0.39		1.92	1.58		mg/Kg	☼	82	61 - 125	7	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	76		49 - 129
DCB Decachlorobiphenyl	75		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Client Sample ID: ED-R2SD-010

Lab Sample ID: 500-204463-1

Date Collected: 08/27/21 11:00

Matrix: Solid

Date Received: 08/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616370	08/30/21 07:02	LWN	TAL CHI

Client Sample ID: ED-R2SD-010

Lab Sample ID: 500-204463-1

Date Collected: 08/27/21 11:00

Matrix: Solid

Date Received: 08/27/21 16:20

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616299	08/27/21 17:26	ACK	TAL CHI
Total/NA	Analysis	8082A		20	616316	08/28/21 00:52	SS	TAL CHI

Client Sample ID: ED-R2SD-012

Lab Sample ID: 500-204463-2

Date Collected: 08/27/21 12:10

Matrix: Solid

Date Received: 08/27/21 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616370	08/30/21 07:02	LWN	TAL CHI

Client Sample ID: ED-R2SD-012

Lab Sample ID: 500-204463-2

Date Collected: 08/27/21 12:10

Matrix: Solid

Date Received: 08/27/21 16:20

Percent Solids: 86.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616299	08/27/21 17:26	ACK	TAL CHI
Total/NA	Analysis	8082A		20	616316	08/28/21 01:38	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204463-1

Login Number: 204463

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-204463-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/1/2021 11:33:26 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Job ID: 500-204463-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-204463-2

Comments

No additional comments.

Receipt

The samples were received on 8/27/2021 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.3° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The COC lists sample -3 as a solid but it is a water and we received two jars.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Client Sample ID: ED-R2SD-EB02

Lab Sample ID: 500-204463-3

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204463-3	ED-R2SD-EB02	Water	08/27/21 14:35	08/27/21 16:20

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Client Sample ID: ED-R2SD-EB02

Lab Sample ID: 500-204463-3

Date Collected: 08/27/21 14:35

Matrix: Water

Date Received: 08/27/21 16:20

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00044		0.00044		mg/L		08/31/21 07:48	08/31/21 18:32	1
PCB-1221	<0.00044		0.00044		mg/L		08/31/21 07:48	08/31/21 18:32	1
PCB-1232	<0.00044		0.00044		mg/L		08/31/21 07:48	08/31/21 18:32	1
PCB-1242	<0.00044		0.00044		mg/L		08/31/21 07:48	08/31/21 18:32	1
PCB-1248	<0.00044		0.00044		mg/L		08/31/21 07:48	08/31/21 18:32	1
PCB-1254	<0.00044		0.00044		mg/L		08/31/21 07:48	08/31/21 18:32	1
PCB-1260	<0.00044		0.00044		mg/L		08/31/21 07:48	08/31/21 18:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	39		30 - 120	08/31/21 07:48	08/31/21 18:32	1
DCB Decachlorobiphenyl	41		30 - 140	08/31/21 07:48	08/31/21 18:32	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

GC Semi VOA

Prep Batch: 616661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204463-3	ED-R2SD-EB02	Total/NA	Water	3510C	
MB 500-616661/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-616661/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-616661/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 616769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204463-3	ED-R2SD-EB02	Total/NA	Water	8082A	616661
MB 500-616661/1-A	Method Blank	Total/NA	Water	8082A	616661
LCS 500-616661/4-A	Lab Control Sample	Total/NA	Water	8082A	616661
LCSD 500-616661/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	616661

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(30-120)	(30-140)
500-204463-3	ED-R2SD-EB02	39	41
LCS 500-616661/4-A	Lab Control Sample	46	62
LCSD 500-616661/5-A	Lab Control Sample Dup	46	61
MB 500-616661/1-A	Method Blank	48	75

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-616661/1-A
Matrix: Water
Analysis Batch: 616769

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 616661

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		08/31/21 07:48	08/31/21 17:44	1
PCB-1221	<0.00040		0.00040		mg/L		08/31/21 07:48	08/31/21 17:44	1
PCB-1232	<0.00040		0.00040		mg/L		08/31/21 07:48	08/31/21 17:44	1
PCB-1242	<0.00040		0.00040		mg/L		08/31/21 07:48	08/31/21 17:44	1
PCB-1248	<0.00040		0.00040		mg/L		08/31/21 07:48	08/31/21 17:44	1
PCB-1254	<0.00040		0.00040		mg/L		08/31/21 07:48	08/31/21 17:44	1
PCB-1260	<0.00040		0.00040		mg/L		08/31/21 07:48	08/31/21 17:44	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	48		30 - 120	08/31/21 07:48	08/31/21 17:44	1
DCB Decachlorobiphenyl	75		30 - 140	08/31/21 07:48	08/31/21 17:44	1

Lab Sample ID: LCS 500-616661/4-A
Matrix: Water
Analysis Batch: 616769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 616661

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00400	0.00255		mg/L		64	56 - 120
PCB-1260	0.00400	0.00280		mg/L		70	53 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	46		30 - 120
DCB Decachlorobiphenyl	62		30 - 140

Lab Sample ID: LCSD 500-616661/5-A
Matrix: Water
Analysis Batch: 616769

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 616661

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD	
		Result	Qualifier					RPD	Limit
PCB-1016	0.00400	0.00249		mg/L		62	56 - 120	2	20
PCB-1260	0.00400	0.00268		mg/L		67	53 - 137	4	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	46		30 - 120
DCB Decachlorobiphenyl	61		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Client Sample ID: ED-R2SD-EB02

Lab Sample ID: 500-204463-3

Date Collected: 08/27/21 14:35

Matrix: Water

Date Received: 08/27/21 16:20

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			616661	08/31/21 07:48	SB	TAL CHI
Total/NA	Analysis	8082A		1	616769	08/31/21 18:32	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204463-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: J O'Brien		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1																																																																																																																																																							
Client Contact: Garrett Welch		Phone: 865-407-8861		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: Page 1 of																																																																																																																																																							
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested																																																																																																																																																									
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested:		<table border="1" style="width:100%; height: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">Job #</td> <td colspan="9">500-204463</td> </tr> <tr> <td colspan="10">Preservation Codes</td> </tr> <tr> <td>A - HCL</td> <td>M Hexane</td> <td colspan="8"></td> </tr> <tr> <td>B - NaOH</td> <td>N - None</td> <td colspan="8"></td> </tr> <tr> <td>C - Zn Acetate</td> <td>O AsNaO2</td> <td colspan="8"></td> </tr> <tr> <td>D - Nitric Acid</td> <td>P Na2O4S</td> <td colspan="8"></td> </tr> <tr> <td>E - NaHSO4</td> <td>Q Na2SO3</td> <td colspan="8"></td> </tr> <tr> <td>F - MeOH</td> <td>R Na2S2O3</td> <td colspan="8"></td> </tr> <tr> <td>G - Amchlor</td> <td>S - H2SO4</td> <td colspan="8"></td> </tr> <tr> <td>H - Ascorbic Acid</td> <td>T - TSP Dodecahydrate</td> <td colspan="8"></td> </tr> <tr> <td>I - Ice</td> <td>U Acetone</td> <td colspan="8"></td> </tr> <tr> <td>J - DI Water</td> <td>V MCAA</td> <td colspan="8"></td> </tr> <tr> <td>K - EDTA</td> <td>W pH 4-5</td> <td colspan="8"></td> </tr> <tr> <td>L - EDA</td> <td>Z other (specify)</td> <td colspan="8"></td> </tr> <tr> <td colspan="10">Other:</td> </tr> </table>				Job #	500-204463									Preservation Codes										A - HCL	M Hexane									B - NaOH	N - None									C - Zn Acetate	O AsNaO2									D - Nitric Acid	P Na2O4S									E - NaHSO4	Q Na2SO3									F - MeOH	R Na2S2O3									G - Amchlor	S - H2SO4									H - Ascorbic Acid	T - TSP Dodecahydrate									I - Ice	U Acetone									J - DI Water	V MCAA									K - EDTA	W pH 4-5									L - EDA	Z other (specify)									Other:									
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City: Knoxville				TAT Requested (days):		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs																																																																																																																																																									
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Phone: 865-340-4914(Tel)				PO #:																																																																																																																																																											
Email: gwelch@cecinc.com				Purchase Order not required																																																																																																																																																											
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Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)					Special Instructions/Note																																																																																																																																																					
1 ED-R2SD-010		8/27	1100	C	S	X X X																																																																																																																																																									
2 ED-R2SD-012		8/27	1210	C	S																																																																																																																																																										
3 ED-R2SD-2802		8/27	1435	C	S																																																																																																																																																										

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Deliverable Requested I II III IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>Jenny O'Brien</i>		Date/Time: <i>8/27/21 1450</i>		Company: <i>CEA</i>		Received by: <i>P. Neal</i>	
Relinquished by: <i>P. Neal</i>		Date/Time: <i>8/27/21 1620</i>		Company: <i>CEA</i>		Received by: <i>Julia Buckley</i>	
Relinquished by:		Date/Time:		Company:		Received by:	



Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204463-2

Login Number: 204463

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Buckley, Paula M

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-204554-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/1/2021 2:12:42 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Job ID: 500-204554-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-204554-1**

Comments

No additional comments.

Receipt

The samples were received on 8/31/2021 3:58 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

- 1
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- 9
- 10
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- 12
- 13
- 14
- 15

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-006

Lab Sample ID: 500-204554-1

No Detections.

Client Sample ID: ED-R2SL-007

Lab Sample ID: 500-204554-2

No Detections.

Client Sample ID: ED-R2SL-008

Lab Sample ID: 500-204554-3

No Detections.

Client Sample ID: ED-R2SL-009

Lab Sample ID: 500-204554-4

No Detections.

Client Sample ID: ED-R2SL-SW01

Lab Sample ID: 500-204554-5

No Detections.

Client Sample ID: ED-R2SL-SW02

Lab Sample ID: 500-204554-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

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Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204554-1	ED-R2SL-006	Solid	08/31/21 14:05	08/31/21 15:58
500-204554-2	ED-R2SL-007	Solid	08/31/21 14:00	08/31/21 15:58
500-204554-3	ED-R2SL-008	Solid	08/31/21 13:50	08/31/21 15:58
500-204554-4	ED-R2SL-009	Solid	08/31/21 13:45	08/31/21 15:58
500-204554-5	ED-R2SL-SW01	Solid	08/31/21 13:55	08/31/21 15:58
500-204554-6	ED-R2SL-SW02	Solid	08/31/21 14:10	08/31/21 15:58

1

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-006

Lab Sample ID: 500-204554-1

Date Collected: 08/31/21 14:05

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 88.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:01	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:01	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:01	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:01	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:01	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:01	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:01	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	08/31/21 16:15	09/01/21 01:01	20
DCB Decachlorobiphenyl	100		37 - 121	08/31/21 16:15	09/01/21 01:01	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-007

Lab Sample ID: 500-204554-2

Date Collected: 08/31/21 14:00

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 92.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 01:17	20
PCB-1221	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 01:17	20
PCB-1232	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 01:17	20
PCB-1242	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 01:17	20
PCB-1248	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 01:17	20
PCB-1254	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 01:17	20
PCB-1260	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 01:17	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		49 - 129	08/31/21 16:15	09/01/21 01:17	20
DCB Decachlorobiphenyl	98		37 - 121	08/31/21 16:15	09/01/21 01:17	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-008

Lab Sample ID: 500-204554-3

Date Collected: 08/31/21 13:50

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 89.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:32	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:32	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:32	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:32	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:32	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:32	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 01:32	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	08/31/21 16:15	09/01/21 01:32	20
DCB Decachlorobiphenyl	76		37 - 121	08/31/21 16:15	09/01/21 01:32	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-009

Lab Sample ID: 500-204554-4

Date Collected: 08/31/21 13:45

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 90.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 02:18	20
PCB-1221	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 02:18	20
PCB-1232	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 02:18	20
PCB-1242	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 02:18	20
PCB-1248	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 02:18	20
PCB-1254	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 02:18	20
PCB-1260	<0.36		0.36		mg/Kg	☼	08/31/21 16:15	09/01/21 02:18	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	71		49 - 129	08/31/21 16:15	09/01/21 02:18	20
DCB Decachlorobiphenyl	86		37 - 121	08/31/21 16:15	09/01/21 02:18	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-SW01

Lab Sample ID: 500-204554-5

Date Collected: 08/31/21 13:55

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 91.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 02:34	20
PCB-1221	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 02:34	20
PCB-1232	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 02:34	20
PCB-1242	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 02:34	20
PCB-1248	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 02:34	20
PCB-1254	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 02:34	20
PCB-1260	<0.35		0.35		mg/Kg	☼	08/31/21 16:15	09/01/21 02:34	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	88		49 - 129	08/31/21 16:15	09/01/21 02:34	20
DCB Decachlorobiphenyl	104		37 - 121	08/31/21 16:15	09/01/21 02:34	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-SW02

Lab Sample ID: 500-204554-6

Date Collected: 08/31/21 14:10

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 86.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	08/31/21 16:15	09/01/21 02:49	20
PCB-1221	<0.37		0.37		mg/Kg	☼	08/31/21 16:15	09/01/21 02:49	20
PCB-1232	<0.37		0.37		mg/Kg	☼	08/31/21 16:15	09/01/21 02:49	20
PCB-1242	<0.37		0.37		mg/Kg	☼	08/31/21 16:15	09/01/21 02:49	20
PCB-1248	<0.37		0.37		mg/Kg	☼	08/31/21 16:15	09/01/21 02:49	20
PCB-1254	<0.37		0.37		mg/Kg	☼	08/31/21 16:15	09/01/21 02:49	20
PCB-1260	<0.37		0.37		mg/Kg	☼	08/31/21 16:15	09/01/21 02:49	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	79		49 - 129	08/31/21 16:15	09/01/21 02:49	20
DCB Decachlorobiphenyl	94		37 - 121	08/31/21 16:15	09/01/21 02:49	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

GC Semi VOA

Prep Batch: 616765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204554-1	ED-R2SL-006	Total/NA	Solid	3541	
500-204554-2	ED-R2SL-007	Total/NA	Solid	3541	
500-204554-3	ED-R2SL-008	Total/NA	Solid	3541	
500-204554-4	ED-R2SL-009	Total/NA	Solid	3541	
500-204554-5	ED-R2SL-SW01	Total/NA	Solid	3541	
500-204554-6	ED-R2SL-SW02	Total/NA	Solid	3541	
MB 500-616765/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-616765/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-204554-3 MS	ED-R2SL-008	Total/NA	Solid	3541	
500-204554-3 MSD	ED-R2SL-008	Total/NA	Solid	3541	

Analysis Batch: 616784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204554-1	ED-R2SL-006	Total/NA	Solid	8082A	616765
500-204554-2	ED-R2SL-007	Total/NA	Solid	8082A	616765
500-204554-3	ED-R2SL-008	Total/NA	Solid	8082A	616765
500-204554-4	ED-R2SL-009	Total/NA	Solid	8082A	616765
500-204554-5	ED-R2SL-SW01	Total/NA	Solid	8082A	616765
500-204554-6	ED-R2SL-SW02	Total/NA	Solid	8082A	616765
MB 500-616765/1-A	Method Blank	Total/NA	Solid	8082A	616765
LCS 500-616765/2-A	Lab Control Sample	Total/NA	Solid	8082A	616765
500-204554-3 MS	ED-R2SL-008	Total/NA	Solid	8082A	616765
500-204554-3 MSD	ED-R2SL-008	Total/NA	Solid	8082A	616765

General Chemistry

Analysis Batch: 616778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204554-1	ED-R2SL-006	Total/NA	Solid	Moisture	
500-204554-2	ED-R2SL-007	Total/NA	Solid	Moisture	
500-204554-3	ED-R2SL-008	Total/NA	Solid	Moisture	
500-204554-4	ED-R2SL-009	Total/NA	Solid	Moisture	
500-204554-5	ED-R2SL-SW01	Total/NA	Solid	Moisture	
500-204554-6	ED-R2SL-SW02	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-204554-1	ED-R2SL-006	87	100
500-204554-2	ED-R2SL-007	87	98
500-204554-3	ED-R2SL-008	67	76
500-204554-3 MS	ED-R2SL-008	94	102
500-204554-3 MSD	ED-R2SL-008	83	91
500-204554-4	ED-R2SL-009	71	86
500-204554-5	ED-R2SL-SW01	88	104
500-204554-6	ED-R2SL-SW02	79	94
LCS 500-616765/2-A	Lab Control Sample	83	103
MB 500-616765/1-A	Method Blank	95	115

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-616765/1-A
 Matrix: Solid
 Analysis Batch: 616784

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 616765

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		08/31/21 16:15	09/01/21 00:30	20
PCB-1221	<0.33		0.33		mg/Kg		08/31/21 16:15	09/01/21 00:30	20
PCB-1232	<0.33		0.33		mg/Kg		08/31/21 16:15	09/01/21 00:30	20
PCB-1242	<0.33		0.33		mg/Kg		08/31/21 16:15	09/01/21 00:30	20
PCB-1248	<0.33		0.33		mg/Kg		08/31/21 16:15	09/01/21 00:30	20
PCB-1254	<0.33		0.33		mg/Kg		08/31/21 16:15	09/01/21 00:30	20
PCB-1260	<0.33		0.33		mg/Kg		08/31/21 16:15	09/01/21 00:30	20

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	95		49 - 129	08/31/21 16:15	09/01/21 00:30	20
DCB Decachlorobiphenyl	115		37 - 121	08/31/21 16:15	09/01/21 00:30	20

Lab Sample ID: LCS 500-616765/2-A
 Matrix: Solid
 Analysis Batch: 616784

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 616765

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.57		mg/Kg		94	57 - 120
PCB-1260	1.67	1.69		mg/Kg		101	61 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	83		49 - 129
DCB Decachlorobiphenyl	103		37 - 121

Lab Sample ID: 500-204554-3 MS
 Matrix: Solid
 Analysis Batch: 616784

Client Sample ID: ED-R2SL-008
 Prep Type: Total/NA
 Prep Batch: 616765

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
PCB-1016	<0.36		1.81	1.68		mg/Kg	☼	93	57 - 120
PCB-1260	<0.36		1.81	1.75		mg/Kg	☼	97	61 - 125

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	94		49 - 129
DCB Decachlorobiphenyl	102		37 - 121

Lab Sample ID: 500-204554-3 MSD
 Matrix: Solid
 Analysis Batch: 616784

Client Sample ID: ED-R2SL-008
 Prep Type: Total/NA
 Prep Batch: 616765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
PCB-1016	<0.36		1.82	1.53		mg/Kg	☼	85	57 - 120	9	30
PCB-1260	<0.36		1.82	1.63		mg/Kg	☼	90	61 - 125	7	30

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	83		49 - 129
DCB Decachlorobiphenyl	91		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-006

Date Collected: 08/31/21 14:05

Date Received: 08/31/21 15:58

Lab Sample ID: 500-204554-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616778	08/31/21 18:25	PFK	TAL CHI

Client Sample ID: ED-R2SL-006

Date Collected: 08/31/21 14:05

Date Received: 08/31/21 15:58

Lab Sample ID: 500-204554-1

Matrix: Solid

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616765	08/31/21 16:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	616784	09/01/21 01:01	SS	TAL CHI

Client Sample ID: ED-R2SL-007

Date Collected: 08/31/21 14:00

Date Received: 08/31/21 15:58

Lab Sample ID: 500-204554-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616778	08/31/21 18:25	PFK	TAL CHI

Client Sample ID: ED-R2SL-007

Date Collected: 08/31/21 14:00

Date Received: 08/31/21 15:58

Lab Sample ID: 500-204554-2

Matrix: Solid

Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616765	08/31/21 16:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	616784	09/01/21 01:17	SS	TAL CHI

Client Sample ID: ED-R2SL-008

Date Collected: 08/31/21 13:50

Date Received: 08/31/21 15:58

Lab Sample ID: 500-204554-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616778	08/31/21 18:25	PFK	TAL CHI

Client Sample ID: ED-R2SL-008

Date Collected: 08/31/21 13:50

Date Received: 08/31/21 15:58

Lab Sample ID: 500-204554-3

Matrix: Solid

Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616765	08/31/21 16:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	616784	09/01/21 01:32	SS	TAL CHI

Client Sample ID: ED-R2SL-009

Date Collected: 08/31/21 13:45

Date Received: 08/31/21 15:58

Lab Sample ID: 500-204554-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616778	08/31/21 18:25	PFK	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Client Sample ID: ED-R2SL-009

Lab Sample ID: 500-204554-4

Date Collected: 08/31/21 13:45

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616765	08/31/21 16:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	616784	09/01/21 02:18	SS	TAL CHI

Client Sample ID: ED-R2SL-SW01

Lab Sample ID: 500-204554-5

Date Collected: 08/31/21 13:55

Matrix: Solid

Date Received: 08/31/21 15:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616778	08/31/21 18:25	PFK	TAL CHI

Client Sample ID: ED-R2SL-SW01

Lab Sample ID: 500-204554-5

Date Collected: 08/31/21 13:55

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 91.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616765	08/31/21 16:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	616784	09/01/21 02:34	SS	TAL CHI

Client Sample ID: ED-R2SL-SW02

Lab Sample ID: 500-204554-6

Date Collected: 08/31/21 14:10

Matrix: Solid

Date Received: 08/31/21 15:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	616778	08/31/21 18:25	PFK	TAL CHI

Client Sample ID: ED-R2SL-SW02

Lab Sample ID: 500-204554-6

Date Collected: 08/31/21 14:10

Matrix: Solid

Date Received: 08/31/21 15:58

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			616765	08/31/21 16:15	JP1	TAL CHI
Total/NA	Analysis	8082A		20	616784	09/01/21 02:49	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <i>I. JORGENSEN</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1											
Client Contact: Garrett Welch		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page 1 of 7											
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested						Job #: <i>500-204554</i>									
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		<table border="1"> <tr><td>Field Filtered Sample (Yes or No)</td><td></td></tr> <tr><td>Perform: MS/MSD (Yes or No)</td><td></td></tr> <tr><td>8092A - PCBs</td><td></td></tr> </table>						Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		8092A - PCBs		Preservation Codes		Total Number of containers Special Instructions/Note	
Field Filtered Sample (Yes or No)																			
Perform: MS/MSD (Yes or No)																			
8092A - PCBs																			
City: Knoxville		TAT Requested (days): <i>RUSH 24hr</i>								A HCL M Hexane									
State Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No		B - NaOH N - None															
Phone: 865-340-4914(Tel) 500-204554 COC		PO #:		C Zn Acetate O AsNaO2															
Email: gwelch@cecinc.com		Purchase Order not required		D Nitric Acid P Na2O4S															
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		E - NaHSO4 Q Na2SO3		F MeOH R Na2S2O3		G - Amchlor S - H2SO4											
Site:		SSOW#:		H - Ascorbic Acid T - TSP Dodecahydrate		I ice U Acetone		J DI Water V MCAA											
				K EDTA W pH 4-5		L EDA Z other (specify)		Other:											
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil)		BT=Tissue, AA=Air									
										Preservation Code:									
										X N									
<i>1 ED-R2SL-006</i>		<i>8/31/21</i>		<i>1405</i>		<i>C S</i>		<i>S</i>		X									
<i>2 ED-R2SL-007</i>		<i>8/31/21</i>		<i>1400</i>		<i>C S</i>		<i>S</i>		X									
<i>3 ED-R2SL-008</i>		<i>8/31/21</i>		<i>1350</i>		<i>C S</i>		<i>S</i>		X									
<i>4 ED-R2SL-009</i>		<i>8/31/21</i>		<i>1345</i>		<i>C S</i>		<i>S</i>		X									
<i>5 ED-R2SL-SW01</i>		<i>8/31/21</i>		<i>1355</i>		<i>C S</i>		<i>S</i>		X									
<i>6 ED-R2SL-SW02</i>		<i>8/31/21</i>		<i>1410</i>		<i>C S</i>		<i>S</i>		X									
<i>7 ED-R2SL-EB03</i>		<i>8/31/21</i>		<i>1440</i>		<i>G W</i>		<i>W</i>		X									
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)															
Deliverable Requested I <input checked="" type="checkbox"/> II <input type="checkbox"/> III <input type="checkbox"/> IV, Other (specify)				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months															
				Special Instructions/QC Requirements															
Empty Kit Relinquished by:		Date		Time		Method of Shipment:													
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/31/21 1455</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/31/21 1458</i>		Company: <i>CEC</i>									
Relinquished by: <i>P. Neal</i>		Date/Time: <i>8/31/21 1558</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/31/21 1558</i>		Company: <i>CEC</i>									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:		Company:									
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 20 of 21				Cooler Temperature(s) °C and Other Remarks: <i>3.0-7.35</i>		9/1/2021									

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204554-1

Login Number: 204554

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-204554-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/7/2021 12:54:39 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Job ID: 500-204554-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-204554-2**

Comments

No additional comments.

Receipt

The samples were received on 8/31/2021 3:58 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5° C.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Client Sample ID: ED-R2SL-EB03

Lab Sample ID: 500-204554-7

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204554-7	ED-R2SL-EB03	Water	08/31/21 14:40	08/31/21 15:58

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Client Sample ID: ED-R2SL-EB03

Lab Sample ID: 500-204554-7

Date Collected: 08/31/21 14:40

Matrix: Water

Date Received: 08/31/21 15:58

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00037		0.00037		mg/L		09/03/21 08:16	09/04/21 00:07	1
PCB-1221	<0.00037		0.00037		mg/L		09/03/21 08:16	09/04/21 00:07	1
PCB-1232	<0.00037		0.00037		mg/L		09/03/21 08:16	09/04/21 00:07	1
PCB-1242	<0.00037		0.00037		mg/L		09/03/21 08:16	09/04/21 00:07	1
PCB-1248	<0.00037		0.00037		mg/L		09/03/21 08:16	09/04/21 00:07	1
PCB-1254	<0.00037		0.00037		mg/L		09/03/21 08:16	09/04/21 00:07	1
PCB-1260	<0.00037		0.00037		mg/L		09/03/21 08:16	09/04/21 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		30 - 120	09/03/21 08:16	09/04/21 00:07	1
DCB Decachlorobiphenyl	85		30 - 140	09/03/21 08:16	09/04/21 00:07	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

GC Semi VOA

Prep Batch: 617228

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204554-7	ED-R2SL-EB03	Total/NA	Water	3510C	
MB 500-617228/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-617228/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-617228/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 617345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204554-7	ED-R2SL-EB03	Total/NA	Water	8082A	617228
MB 500-617228/1-A	Method Blank	Total/NA	Water	8082A	617228
LCS 500-617228/2-A	Lab Control Sample	Total/NA	Water	8082A	617228
LCSD 500-617228/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	617228

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-204554-7	ED-R2SL-EB03	63	85
LCS 500-617228/2-A	Lab Control Sample	75	58
LCSD 500-617228/3-A	Lab Control Sample Dup	78	88
MB 500-617228/1-A	Method Blank	85	71

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-617228/1-A
Matrix: Water
Analysis Batch: 617345

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617228

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.00040		0.00040		mg/L		09/03/21 08:16	09/03/21 20:21	1
PCB-1221	<0.00040		0.00040		mg/L		09/03/21 08:16	09/03/21 20:21	1
PCB-1232	<0.00040		0.00040		mg/L		09/03/21 08:16	09/03/21 20:21	1
PCB-1242	<0.00040		0.00040		mg/L		09/03/21 08:16	09/03/21 20:21	1
PCB-1248	<0.00040		0.00040		mg/L		09/03/21 08:16	09/03/21 20:21	1
PCB-1254	<0.00040		0.00040		mg/L		09/03/21 08:16	09/03/21 20:21	1
PCB-1260	<0.00040		0.00040		mg/L		09/03/21 08:16	09/03/21 20:21	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	85		30 - 120	09/03/21 08:16	09/03/21 20:21	1
DCB Decachlorobiphenyl	71		30 - 140	09/03/21 08:16	09/03/21 20:21	1

Lab Sample ID: LCS 500-617228/2-A
Matrix: Water
Analysis Batch: 617345

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617228

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	0.00400	0.00383		mg/L		96	56 - 120
PCB-1260	0.00400	0.00448		mg/L		112	53 - 137

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	75		30 - 120
DCB Decachlorobiphenyl	58		30 - 140

Lab Sample ID: LCSD 500-617228/3-A
Matrix: Water
Analysis Batch: 617345

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 617228

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
PCB-1016	0.00400	0.00421		mg/L		105	56 - 120	9	20
PCB-1260	0.00400	0.00476		mg/L		119	53 - 137	6	20

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	78		30 - 120
DCB Decachlorobiphenyl	88		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Client Sample ID: ED-R2SL-EB03

Lab Sample ID: 500-204554-7

Date Collected: 08/31/21 14:40

Matrix: Water

Date Received: 08/31/21 15:58

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			617228	09/03/21 08:16	DAK	TAL CHI
Total/NA	Analysis	8082A		1	617345	09/04/21 00:07	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204554-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <i>I. JORGENSEN</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s):		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: 224-250-5434		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin:		Page: Page 1 of 7	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested:		Job #: <i>500-204554</i> Preservation Codes A HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E - NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:			
City: Knoxville				TAT Requested (days): <i>RUSH 24hr</i>					
State Zip: TN 37920				Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Phone: 865-340-4914(Tel) 500-204554 COC				PO #:					
Email: gwelch@cecinc.com				Purchase Order not required					
Project Name: Arconic PCB Rush Project - Lafayette, IN				Project #: 50019033		Field Filtered Sample (Yes or No) Perform: MS/MSD (Yes or No) 8092A - PCBs			
Site:				SSOW#:					
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil)	BT=Tissue, AA=Air		Total Number of containers	
						Preservation Code:		Special Instructions/Note	
<i>ED-R2SL-006</i>		<i>8/31/21</i>	<i>1405</i>	<i>C</i>	<i>S</i>				
<i>ED-R2SL-007</i>		<i>8/31/21</i>	<i>1400</i>	<i>C</i>	<i>S</i>				
<i>ED-R2SL-008</i>		<i>8/31/21</i>	<i>1350</i>	<i>C</i>	<i>S</i>				
<i>ED-R2SL-009</i>		<i>8/31/21</i>	<i>1345</i>	<i>C</i>	<i>S</i>				
<i>ED-R2SL-SW01</i>		<i>8/31/21</i>	<i>1355</i>	<i>C</i>	<i>S</i>				
<i>ED-R2SL-SW02</i>		<i>8/31/21</i>	<i>1410</i>	<i>C</i>	<i>S</i>				
<i>ED-R2SL-EB03</i>		<i>8/31/21</i>	<i>1440</i>	<i>G</i>	<i>W</i>				
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I <input checked="" type="checkbox"/> II <input type="checkbox"/> IV, Other (specify)					Special Instructions/QC Requirements				
Empty Kit Relinquished by:		Date		Time		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>8/31/21 1455</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/31/21 1458</i>	
Relinquished by: <i>P. Neal</i>		Date/Time: <i>8/31/21 1558</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>8/31/21 1558</i>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 14 of 15		Cooler Temperature(s) °C and Other Remarks: <i>3.0-7.35</i>		9/7/2021	

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204554-2

Login Number: 204554

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is < /= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is < 6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-204899-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/9/2021 1:57:28 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Job ID: 500-204899-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-204899-1

Comments

No additional comments.

Receipt

The samples were received on 9/8/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.7° C.

GC Semi VOA

Method 8082A: The following samples were reported from the primary column due to DCB Decachlorobiphenyl, Tetrachloro-m-xylene and PCB-1260 recovering outside control limits for the continuing calibration verification (CCV) on the secondary column; therefore, the higher of the two results have been reported.

Method 8082A: The following sample contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1242: ED-R3SD-002 (500-204899-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Client Sample ID: ED-R3SD-000

Lab Sample ID: 500-204899-1

No Detections.

Client Sample ID: ED-R3SD-001

Lab Sample ID: 500-204899-2

No Detections.

Client Sample ID: ED-R3SD-002

Lab Sample ID: 500-204899-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.59		0.37		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R3SD-DUP1

Lab Sample ID: 500-204899-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago



Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204899-1	ED-R3SD-000	Solid	09/08/21 12:50	09/08/21 16:00
500-204899-2	ED-R3SD-001	Solid	09/08/21 12:53	09/08/21 16:00
500-204899-3	ED-R3SD-002	Solid	09/08/21 12:55	09/08/21 16:00
500-204899-4	ED-R3SD-DUP1	Solid	09/08/21 12:53	09/08/21 16:00

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Client Sample ID: ED-R3SD-000

Lab Sample ID: 500-204899-1

Date Collected: 09/08/21 12:50

Matrix: Solid

Date Received: 09/08/21 16:00

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:43	20
PCB-1221	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:43	20
PCB-1232	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:43	20
PCB-1242	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:43	20
PCB-1248	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:43	20
PCB-1254	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:43	20
PCB-1260	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	92		49 - 129	09/08/21 16:26	09/09/21 01:43	20
DCB Decachlorobiphenyl	106		37 - 121	09/08/21 16:26	09/09/21 01:43	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Client Sample ID: ED-R3SD-001

Lab Sample ID: 500-204899-2

Date Collected: 09/08/21 12:53

Matrix: Solid

Date Received: 09/08/21 16:00

Percent Solids: 88.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:59	20
PCB-1221	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:59	20
PCB-1232	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:59	20
PCB-1242	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:59	20
PCB-1248	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:59	20
PCB-1254	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:59	20
PCB-1260	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 01:59	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		49 - 129	09/08/21 16:26	09/09/21 01:59	20
DCB Decachlorobiphenyl	115		37 - 121	09/08/21 16:26	09/09/21 01:59	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Client Sample ID: ED-R3SD-002

Lab Sample ID: 500-204899-3

Date Collected: 09/08/21 12:55

Matrix: Solid

Date Received: 09/08/21 16:00

Percent Solids: 86.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 02:45	20
PCB-1221	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 02:45	20
PCB-1232	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 02:45	20
PCB-1242	0.59		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 02:45	20
PCB-1248	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 02:45	20
PCB-1254	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 02:45	20
PCB-1260	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 02:45	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		49 - 129	09/08/21 16:26	09/09/21 02:45	20
DCB Decachlorobiphenyl	113		37 - 121	09/08/21 16:26	09/09/21 02:45	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Client Sample ID: ED-R3SD-DUP1

Lab Sample ID: 500-204899-4

Date Collected: 09/08/21 12:53

Matrix: Solid

Date Received: 09/08/21 16:00

Percent Solids: 87.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 03:00	20
PCB-1221	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 03:00	20
PCB-1232	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 03:00	20
PCB-1242	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 03:00	20
PCB-1248	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 03:00	20
PCB-1254	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 03:00	20
PCB-1260	<0.37		0.37		mg/Kg	☼	09/08/21 16:26	09/09/21 03:00	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	95		49 - 129	09/08/21 16:26	09/09/21 03:00	20
DCB Decachlorobiphenyl	120		37 - 121	09/08/21 16:26	09/09/21 03:00	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

GC Semi VOA

Analysis Batch: 617725

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204899-1	ED-R3SD-000	Total/NA	Solid	8082A	617728
500-204899-2	ED-R3SD-001	Total/NA	Solid	8082A	617728
500-204899-3	ED-R3SD-002	Total/NA	Solid	8082A	617728
500-204899-4	ED-R3SD-DUP1	Total/NA	Solid	8082A	617728
MB 500-617728/1-A	Method Blank	Total/NA	Solid	8082A	617728
LCS 500-617728/2-A	Lab Control Sample	Total/NA	Solid	8082A	617728
500-204899-2 MS	ED-R3SD-001	Total/NA	Solid	8082A	617728
500-204899-2 MSD	ED-R3SD-001	Total/NA	Solid	8082A	617728

Prep Batch: 617728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204899-1	ED-R3SD-000	Total/NA	Solid	3541	
500-204899-2	ED-R3SD-001	Total/NA	Solid	3541	
500-204899-3	ED-R3SD-002	Total/NA	Solid	3541	
500-204899-4	ED-R3SD-DUP1	Total/NA	Solid	3541	
MB 500-617728/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-617728/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-204899-2 MS	ED-R3SD-001	Total/NA	Solid	3541	
500-204899-2 MSD	ED-R3SD-001	Total/NA	Solid	3541	

General Chemistry

Analysis Batch: 617770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204899-1	ED-R3SD-000	Total/NA	Solid	Moisture	
500-204899-2	ED-R3SD-001	Total/NA	Solid	Moisture	
500-204899-3	ED-R3SD-002	Total/NA	Solid	Moisture	
500-204899-4	ED-R3SD-DUP1	Total/NA	Solid	Moisture	
500-204899-2 DU	ED-R3SD-001	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2	DCBP2
		(49-129)	(37-121)
500-204899-1	ED-R3SD-000	92	106
500-204899-2	ED-R3SD-001	89	115
500-204899-2 MS	ED-R3SD-001	90	116
500-204899-2 MSD	ED-R3SD-001	91	108
500-204899-3	ED-R3SD-002	91	113
500-204899-4	ED-R3SD-DUP1	95	120
LCS 500-617728/2-A	Lab Control Sample	76	103
MB 500-617728/1-A	Method Blank	92	106

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-617728/1-A
Matrix: Solid
Analysis Batch: 617725

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617728

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		09/08/21 16:26	09/09/21 01:12		20	
PCB-1221	<0.33		0.33		mg/Kg		09/08/21 16:26	09/09/21 01:12		20	
PCB-1232	<0.33		0.33		mg/Kg		09/08/21 16:26	09/09/21 01:12		20	
PCB-1242	<0.33		0.33		mg/Kg		09/08/21 16:26	09/09/21 01:12		20	
PCB-1248	<0.33		0.33		mg/Kg		09/08/21 16:26	09/09/21 01:12		20	
PCB-1254	<0.33		0.33		mg/Kg		09/08/21 16:26	09/09/21 01:12		20	
PCB-1260	<0.33		0.33		mg/Kg		09/08/21 16:26	09/09/21 01:12		20	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	92		49 - 129	09/08/21 16:26	09/09/21 01:12		20	
DCB Decachlorobiphenyl	106		37 - 121	09/08/21 16:26	09/09/21 01:12		20	

Lab Sample ID: LCS 500-617728/2-A
Matrix: Solid
Analysis Batch: 617725

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617728

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.32		mg/Kg		79	57 - 120	
PCB-1260	1.67	1.44		mg/Kg		86	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	76		49 - 129
DCB Decachlorobiphenyl	103		37 - 121

Lab Sample ID: 500-204899-2 MS
Matrix: Solid
Analysis Batch: 617725

Client Sample ID: ED-R3SD-001
Prep Type: Total/NA
Prep Batch: 617728

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.37		1.82	1.68		mg/Kg	☼	92	57 - 120	
PCB-1260	<0.37		1.82	1.74		mg/Kg	☼	96	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	90		49 - 129
DCB Decachlorobiphenyl	116		37 - 121

Lab Sample ID: 500-204899-2 MSD
Matrix: Solid
Analysis Batch: 617725

Client Sample ID: ED-R3SD-001
Prep Type: Total/NA
Prep Batch: 617728

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.37		1.85	1.74		mg/Kg	☼	94	57 - 120	4	30	
PCB-1260	<0.37		1.85	1.81		mg/Kg	☼	98	61 - 125	4	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	91		49 - 129
DCB Decachlorobiphenyl	108		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Client Sample ID: ED-R3SD-000

Date Collected: 09/08/21 12:50

Date Received: 09/08/21 16:00

Lab Sample ID: 500-204899-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617770	09/09/21 06:33	LWN	TAL CHI

Client Sample ID: ED-R3SD-000

Date Collected: 09/08/21 12:50

Date Received: 09/08/21 16:00

Lab Sample ID: 500-204899-1

Matrix: Solid

Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			617728	09/08/21 16:26	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617725	09/09/21 01:43	SS	TAL CHI

Client Sample ID: ED-R3SD-001

Date Collected: 09/08/21 12:53

Date Received: 09/08/21 16:00

Lab Sample ID: 500-204899-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617770	09/09/21 06:33	LWN	TAL CHI

Client Sample ID: ED-R3SD-001

Date Collected: 09/08/21 12:53

Date Received: 09/08/21 16:00

Lab Sample ID: 500-204899-2

Matrix: Solid

Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			617728	09/08/21 16:26	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617725	09/09/21 01:59	SS	TAL CHI

Client Sample ID: ED-R3SD-002

Date Collected: 09/08/21 12:55

Date Received: 09/08/21 16:00

Lab Sample ID: 500-204899-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617770	09/09/21 06:33	LWN	TAL CHI

Client Sample ID: ED-R3SD-002

Date Collected: 09/08/21 12:55

Date Received: 09/08/21 16:00

Lab Sample ID: 500-204899-3

Matrix: Solid

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			617728	09/08/21 16:26	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617725	09/09/21 02:45	SS	TAL CHI

Client Sample ID: ED-R3SD-DUP1

Date Collected: 09/08/21 12:53

Date Received: 09/08/21 16:00

Lab Sample ID: 500-204899-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617770	09/09/21 06:33	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Client Sample ID: ED-R3SD-DUP1

Lab Sample ID: 500-204899-4

Date Collected: 09/08/21 12:53

Matrix: Solid

Date Received: 09/08/21 16:00

Percent Solids: 87.1

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3541			617728	09/08/21 16:26	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617725	09/09/21 03:00	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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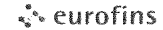
14

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534 5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: F. JORGENSEN		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: 224-250-5434		E-Mail: Robin Kintz@Eurofinset.com		State of Origin		Page: Page 1 of 1	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101				Due Date Requested		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers	
City: Knoxville		TAT Requested (days): RUSH 24 HR		Preservation Codes A HCL M Hexane B - NaOH N - None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify)					
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No							
Phone: 865-340-4914(Tel) 500-204899 COC		PO #: Purchase Order not required							
Email: gwelch@cecinc.com		WO #:							
Project Name: Arconic PCB Rush Project - Lafayette IN				Project #: 50019033		Other:		Special Instructions/Note	
Site:				SSOW#:					
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code:	
ED-R3SD-000		9/8/21		1250		C S		S	
ED-R3SD-001 (MS/MSD)		9/8/21		1253		C S		S	
ED-R3SD-002		9/8/21		1256		C S		S	
ED-R3SD-DUP 1		9/8/21		1253		C S		S	
ED-R3SD-EB1		9/8/21		1430		G W		W	
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				
Deliverable Requested I, II, III, IV, Other (specify) II					Special Instructions/QC Requirements				
Empty Kit Relinquished by:			Date:		Time:		Method of Shipment:		
Relinquished by: <i>[Signature]</i>		Date/Time: 9/8/21 1450		Company: CEC		Received by: <i>[Signature]</i>		Date/Time: 9/8/21 1450	
Relinquished by: <i>[Signature]</i>		Date/Time: 9/8/21 1600		Company: EA		Received by: <i>[Signature]</i>		Date/Time: 9/8/21 1600	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 18 of 19			Cooler Temperature(s) °C and Other Remarks: 4.8-4.7		9/9/2021

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204899-1

Login Number: 204899

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

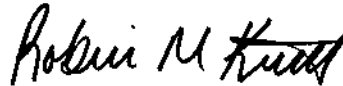
Laboratory Job ID: 500-204899-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/14/2021 3:38:15 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Job ID: 500-204899-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-204899-2**

Comments

No additional comments.

Receipt

The samples were received on 9/8/2021 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.7° C.

GC Semi VOA

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-618487/1). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Client Sample ID: ED-R3SD-EB1

Lab Sample ID: 500-204899-5

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204899-5	ED-R3SD-EB1	Water	09/08/21 14:30	09/08/21 16:00

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Client Sample ID: ED-R3SD-EB1

Lab Sample ID: 500-204899-5

Date Collected: 09/08/21 14:30

Matrix: Water

Date Received: 09/08/21 16:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 10:23	1
PCB-1221	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 10:23	1
PCB-1232	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 10:23	1
PCB-1242	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 10:23	1
PCB-1248	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 10:23	1
PCB-1254	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 10:23	1
PCB-1260	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 10:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		30 - 120	09/13/21 20:32	09/14/21 10:23	1
DCB Decachlorobiphenyl	63		30 - 140	09/13/21 20:32	09/14/21 10:23	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

GC Semi VOA

Prep Batch: 618401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204899-5	ED-R3SD-EB1	Total/NA	Water	3510C	
MB 500-618401/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-618401/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-618401/4-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 618487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204899-5	ED-R3SD-EB1	Total/NA	Water	8082A	618401
MB 500-618401/1-A	Method Blank	Total/NA	Water	8082A	618401
LCS 500-618401/3-A	Lab Control Sample	Total/NA	Water	8082A	618401
LCSD 500-618401/4-A	Lab Control Sample Dup	Total/NA	Water	8082A	618401

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-204899-5	ED-R3SD-EB1	81	63
LCS 500-618401/3-A	Lab Control Sample	72	73
LCSD 500-618401/4-A	Lab Control Sample Dup	96	68
MB 500-618401/1-A	Method Blank	36	83

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-618401/1-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 618401

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1221	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1232	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1242	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1248	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1254	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1260	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	36		30 - 120	09/13/21 20:32	09/14/21 09:34	1
DCB Decachlorobiphenyl	83		30 - 140	09/13/21 20:32	09/14/21 09:34	1

Lab Sample ID: LCS 500-618401/3-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 618401

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00343		mg/L		86	56 - 120
PCB-1260	0.00400	0.00381		mg/L		95	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	72		30 - 120
DCB Decachlorobiphenyl	73		30 - 140

Lab Sample ID: LCSD 500-618401/4-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 618401

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00366		mg/L		91	56 - 120	6	20
PCB-1260	0.00400	0.00372		mg/L		93	53 - 137	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	96		30 - 120
DCB Decachlorobiphenyl	68		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Client Sample ID: ED-R3SD-EB1

Lab Sample ID: 500-204899-5

Date Collected: 09/08/21 14:30

Matrix: Water

Date Received: 09/08/21 16:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			618401	09/13/21 20:32	JP1	TAL CHI
Total/NA	Analysis	8082A		1	618487	09/14/21 10:23	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204899-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204899-2

Login Number: 204899

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-204980-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/10/2021 1:16:12 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Job ID: 500-204980-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-204980-1**

Comments

No additional comments.

Receipt

The samples were received on 9/9/2021 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

GC Semi VOA

Method 8082A: The following samples contained more than one Aroclor with insufficient separation to quantify individually. The PCBs present are quantified as the predominant Aroclor PCB-1232: ED-R3SD-003 (500-204980-1), ED-R3SD-005 (500-204980-3) and ED-R3SD-006 (500-204980-4).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Client Sample ID: ED-R3SD-003

Lab Sample ID: 500-204980-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	3.4		0.43		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R3SD-004

Lab Sample ID: 500-204980-2

No Detections.

Client Sample ID: ED-R3SD-005

Lab Sample ID: 500-204980-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	1.3		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R3SD-006

Lab Sample ID: 500-204980-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1232	0.72		0.40		mg/Kg	20	✳	8082A	Total/NA

Client Sample ID: ED-R3SD-SW01

Lab Sample ID: 500-204980-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204980-1	ED-R3SD-003	Solid	09/09/21 13:25	09/09/21 16:35
500-204980-2	ED-R3SD-004	Solid	09/09/21 13:32	09/09/21 16:35
500-204980-3	ED-R3SD-005	Solid	09/09/21 13:37	09/09/21 16:35
500-204980-4	ED-R3SD-006	Solid	09/09/21 13:48	09/09/21 16:35
500-204980-5	ED-R3SD-SW01	Solid	09/09/21 13:09	09/09/21 16:35

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Client Sample ID: ED-R3SD-003

Lab Sample ID: 500-204980-1

Date Collected: 09/09/21 13:25

Matrix: Solid

Date Received: 09/09/21 16:35

Percent Solids: 77.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	09/09/21 18:18	09/10/21 00:26	20
PCB-1221	<0.43		0.43		mg/Kg	☼	09/09/21 18:18	09/10/21 00:26	20
PCB-1232	3.4		0.43		mg/Kg	☼	09/09/21 18:18	09/10/21 00:26	20
PCB-1242	<0.43		0.43		mg/Kg	☼	09/09/21 18:18	09/10/21 00:26	20
PCB-1248	<0.43		0.43		mg/Kg	☼	09/09/21 18:18	09/10/21 00:26	20
PCB-1254	<0.43		0.43		mg/Kg	☼	09/09/21 18:18	09/10/21 00:26	20
PCB-1260	<0.43		0.43		mg/Kg	☼	09/09/21 18:18	09/10/21 00:26	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		49 - 129	09/09/21 18:18	09/10/21 00:26	20
DCB Decachlorobiphenyl	100		37 - 121	09/09/21 18:18	09/10/21 00:26	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Client Sample ID: ED-R3SD-004

Lab Sample ID: 500-204980-2

Date Collected: 09/09/21 13:32

Matrix: Solid

Date Received: 09/09/21 16:35

Percent Solids: 84.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 00:41	20
PCB-1221	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 00:41	20
PCB-1232	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 00:41	20
PCB-1242	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 00:41	20
PCB-1248	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 00:41	20
PCB-1254	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 00:41	20
PCB-1260	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 00:41	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		49 - 129	09/09/21 18:18	09/10/21 00:41	20
DCB Decachlorobiphenyl	98		37 - 121	09/09/21 18:18	09/10/21 00:41	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Client Sample ID: ED-R3SD-005

Lab Sample ID: 500-204980-3

Date Collected: 09/09/21 13:37

Matrix: Solid

Date Received: 09/09/21 16:35

Percent Solids: 82.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:27	20
PCB-1221	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:27	20
PCB-1232	1.3		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:27	20
PCB-1242	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:27	20
PCB-1248	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:27	20
PCB-1254	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:27	20
PCB-1260	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:27	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	60		49 - 129	09/09/21 18:18	09/10/21 01:27	20
DCB Decachlorobiphenyl	81		37 - 121	09/09/21 18:18	09/10/21 01:27	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Client Sample ID: ED-R3SD-006

Lab Sample ID: 500-204980-4

Date Collected: 09/09/21 13:48

Matrix: Solid

Date Received: 09/09/21 16:35

Percent Solids: 82.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:43	20
PCB-1221	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:43	20
PCB-1232	0.72		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:43	20
PCB-1242	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:43	20
PCB-1248	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:43	20
PCB-1254	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:43	20
PCB-1260	<0.40		0.40		mg/Kg	☼	09/09/21 18:18	09/10/21 01:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		49 - 129	09/09/21 18:18	09/10/21 01:43	20
DCB Decachlorobiphenyl	88		37 - 121	09/09/21 18:18	09/10/21 01:43	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Client Sample ID: ED-R3SD-SW01

Lab Sample ID: 500-204980-5

Date Collected: 09/09/21 13:09

Matrix: Solid

Date Received: 09/09/21 16:35

Percent Solids: 83.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 01:58	20
PCB-1221	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 01:58	20
PCB-1232	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 01:58	20
PCB-1242	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 01:58	20
PCB-1248	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 01:58	20
PCB-1254	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 01:58	20
PCB-1260	<0.38		0.38		mg/Kg	☼	09/09/21 18:18	09/10/21 01:58	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	66		49 - 129	09/09/21 18:18	09/10/21 01:58	20
DCB Decachlorobiphenyl	90		37 - 121	09/09/21 18:18	09/10/21 01:58	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

GC Semi VOA

Prep Batch: 617937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204980-1	ED-R3SD-003	Total/NA	Solid	3541	
500-204980-2	ED-R3SD-004	Total/NA	Solid	3541	
500-204980-3	ED-R3SD-005	Total/NA	Solid	3541	
500-204980-4	ED-R3SD-006	Total/NA	Solid	3541	
500-204980-5	ED-R3SD-SW01	Total/NA	Solid	3541	
MB 500-617937/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-617937/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-204980-2 MS	ED-R3SD-004	Total/NA	Solid	3541	
500-204980-2 MSD	ED-R3SD-004	Total/NA	Solid	3541	

Analysis Batch: 617949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204980-1	ED-R3SD-003	Total/NA	Solid	8082A	617937
500-204980-2	ED-R3SD-004	Total/NA	Solid	8082A	617937
500-204980-3	ED-R3SD-005	Total/NA	Solid	8082A	617937
500-204980-4	ED-R3SD-006	Total/NA	Solid	8082A	617937
500-204980-5	ED-R3SD-SW01	Total/NA	Solid	8082A	617937
MB 500-617937/1-A	Method Blank	Total/NA	Solid	8082A	617937
LCS 500-617937/2-A	Lab Control Sample	Total/NA	Solid	8082A	617937
500-204980-2 MS	ED-R3SD-004	Total/NA	Solid	8082A	617937
500-204980-2 MSD	ED-R3SD-004	Total/NA	Solid	8082A	617937

General Chemistry

Analysis Batch: 617963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204980-1	ED-R3SD-003	Total/NA	Solid	Moisture	
500-204980-2	ED-R3SD-004	Total/NA	Solid	Moisture	
500-204980-3	ED-R3SD-005	Total/NA	Solid	Moisture	
500-204980-4	ED-R3SD-006	Total/NA	Solid	Moisture	
500-204980-5	ED-R3SD-SW01	Total/NA	Solid	Moisture	
500-204980-4 DU	ED-R3SD-006	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	TCX2	DCBP1	DCBP2
		(49-129)	(49-129)	(37-121)	(37-121)
500-204980-1	ED-R3SD-003		74		100
500-204980-2	ED-R3SD-004		78		98
500-204980-2 MS	ED-R3SD-004		97		121
500-204980-2 MSD	ED-R3SD-004		83		108
500-204980-3	ED-R3SD-005		60		81
500-204980-4	ED-R3SD-006	65		88	
500-204980-5	ED-R3SD-SW01	66		90	
LCS 500-617937/2-A	Lab Control Sample	76	74	109	99
MB 500-617937/1-A	Method Blank	88	79	118	102

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-617937/1-A
Matrix: Solid
Analysis Batch: 617949

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 617937

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1016	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1221	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1221	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1232	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1232	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1242	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1242	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1248	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1248	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1254	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1254	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1260	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20
PCB-1260	<0.33		0.33		mg/Kg		09/09/21 18:18	09/09/21 23:52	20

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	88		49 - 129	09/09/21 18:18	09/09/21 23:52	20
Tetrachloro-m-xylene	79		49 - 129	09/09/21 18:18	09/09/21 23:52	20
DCB Decachlorobiphenyl	118		37 - 121	09/09/21 18:18	09/09/21 23:52	20
DCB Decachlorobiphenyl	102		37 - 121	09/09/21 18:18	09/09/21 23:52	20

Lab Sample ID: LCS 500-617937/2-A
Matrix: Solid
Analysis Batch: 617949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 617937

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
PCB-1016	1.67	1.43		mg/Kg		86	57 - 120
PCB-1016	1.67	1.35		mg/Kg		81	57 - 120
PCB-1260	1.67	1.54		mg/Kg		92	61 - 125
PCB-1260	1.67	1.40		mg/Kg		84	61 - 125

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	76		49 - 129
Tetrachloro-m-xylene	74		49 - 129
DCB Decachlorobiphenyl	109		37 - 121
DCB Decachlorobiphenyl	99		37 - 121

Lab Sample ID: 500-204980-2 MS
Matrix: Solid
Analysis Batch: 617949

Client Sample ID: ED-R3SD-004
Prep Type: Total/NA
Prep Batch: 617937

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier		Result	Qualifier				
PCB-1016	<0.38		1.94	2.08		mg/Kg	☼	107	57 - 120
PCB-1260	<0.38		1.94	2.12		mg/Kg	☼	109	61 - 125

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	97		49 - 129

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 500-204980-2 MS
Matrix: Solid
Analysis Batch: 617949

Client Sample ID: ED-R3SD-004
Prep Type: Total/NA
Prep Batch: 617937

<u>Surrogate</u>	<u>MS</u> <u>%Recovery</u>	<u>MS</u> <u>Qualifier</u>	<u>Limits</u>
<i>DCB Decachlorobiphenyl</i>	121		37 - 121

Lab Sample ID: 500-204980-2 MSD
Matrix: Solid
Analysis Batch: 617949

Client Sample ID: ED-R3SD-004
Prep Type: Total/NA
Prep Batch: 617937

<u>Analyte</u>	<u>Sample</u> <u>Result</u>	<u>Sample</u> <u>Qualifier</u>	<u>Spike</u> <u>Added</u>	<u>MSD</u> <u>Result</u>	<u>MSD</u> <u>Qualifier</u>	<u>Unit</u>	<u>D</u>	<u>%Rec</u>	<u>Limits</u>	<u>RPD</u>	<u>Limit</u>
PCB-1016	<0.38		1.95	1.77		mg/Kg	⊛	91	57 - 120	16	30
PCB-1260	<0.38		1.95	1.84		mg/Kg	⊛	95	61 - 125	14	30

<u>Surrogate</u>	<u>MSD</u> <u>%Recovery</u>	<u>MSD</u> <u>Qualifier</u>	<u>Limits</u>
<i>Tetrachloro-m-xylene</i>	83		49 - 129
<i>DCB Decachlorobiphenyl</i>	108		37 - 121



Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Client Sample ID: ED-R3SD-003

Date Collected: 09/09/21 13:25

Date Received: 09/09/21 16:35

Lab Sample ID: 500-204980-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617963	09/10/21 06:11	LWN	TAL CHI

Client Sample ID: ED-R3SD-003

Date Collected: 09/09/21 13:25

Date Received: 09/09/21 16:35

Lab Sample ID: 500-204980-1

Matrix: Solid

Percent Solids: 77.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			617937	09/09/21 18:18	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617949	09/10/21 00:26	SS	TAL CHI

Client Sample ID: ED-R3SD-004

Date Collected: 09/09/21 13:32

Date Received: 09/09/21 16:35

Lab Sample ID: 500-204980-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617963	09/10/21 06:11	LWN	TAL CHI

Client Sample ID: ED-R3SD-004

Date Collected: 09/09/21 13:32

Date Received: 09/09/21 16:35

Lab Sample ID: 500-204980-2

Matrix: Solid

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			617937	09/09/21 18:18	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617949	09/10/21 00:41	SS	TAL CHI

Client Sample ID: ED-R3SD-005

Date Collected: 09/09/21 13:37

Date Received: 09/09/21 16:35

Lab Sample ID: 500-204980-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617963	09/10/21 06:11	LWN	TAL CHI

Client Sample ID: ED-R3SD-005

Date Collected: 09/09/21 13:37

Date Received: 09/09/21 16:35

Lab Sample ID: 500-204980-3

Matrix: Solid

Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			617937	09/09/21 18:18	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617949	09/10/21 01:27	SS	TAL CHI

Client Sample ID: ED-R3SD-006

Date Collected: 09/09/21 13:48

Date Received: 09/09/21 16:35

Lab Sample ID: 500-204980-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617963	09/10/21 06:11	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Client Sample ID: ED-R3SD-006

Lab Sample ID: 500-204980-4

Date Collected: 09/09/21 13:48

Matrix: Solid

Date Received: 09/09/21 16:35

Percent Solids: 82.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			617937	09/09/21 18:18	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617949	09/10/21 01:43	SS	TAL CHI

Client Sample ID: ED-R3SD-SW01

Lab Sample ID: 500-204980-5

Date Collected: 09/09/21 13:09

Matrix: Solid

Date Received: 09/09/21 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	617963	09/10/21 06:11	LWN	TAL CHI

Client Sample ID: ED-R3SD-SW01

Lab Sample ID: 500-204980-5

Date Collected: 09/09/21 13:09

Matrix: Solid

Date Received: 09/09/21 16:35

Percent Solids: 83.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			617937	09/09/21 18:18	JP1	TAL CHI
Total/NA	Analysis	8082A		20	617949	09/10/21 01:58	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
University Park IL 60484
Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information			Sampler: <i>F. JORISMEK</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1			
Client Contact: Garrett Welch			Phone: <i>224-250-5034</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin		Page: Page 1 of			
Company: Civil & Environmental Consultants Inc			PWSID:		Analysis Requested						Job #: <i>500-204980</i>	
Address: 2704 Cherokee Farm Way Suite 101			Due Date Requested		 500-204980 COC						Preservation Codes A HCL M Hexane B - NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G - Amchlor S H2SO4 H Ascorbic Acid T - TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Z other (specify) Other:	
City: Knoxville			TAT Requested (days)									
State, Zip: TN 37920			Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No									
Phone: 865-340-4914(Tel)			PO #									
Email: gwelch@cecinc.com			Purchase Order not required									
Project Name: Arconic PCB Rush Project - Lafayette IN			Project #: 50019033		Field Filtered Sample (Yes or No)		Perform: MS/MSD (Yes or No)		Total Number of containers			
Site:			SSOW#		8082A - PCBs							
Sample Identification			Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Special Instructions/Note	
							Preservation Code:		X		N	
<i>ED-R3SD-003</i>			<i>1325</i>		<i>9/9/21</i>		<i>C</i>		<i>S</i>			
<i>ED-R3SD-004</i>			<i>1332</i>				<i>C</i>		<i>S</i>			
<i>ED-R3SD-005</i>			<i>1337</i>				<i>C</i>		<i>S</i>			
<i>ED-R3SD-006</i>			<i>1348</i>				<i>C</i>		<i>S</i>			
<i>ED-R3SL-S401</i>			<i>1304</i>				<i>C</i>		<i>S</i>			
<i>ED-R3SD-EB2</i>			<i>1345</i>		<i>✓</i>		<i>G</i>		<i>W</i>			
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I II, III IV Other (specify)						Special Instructions/QC Requirements						
Empty Kit Relinquished by:			Date		Time		Method of Shipment					
Relinquished by: <i>[Signature]</i>			Date/Time: <i>9/9/21 1520</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>9/9/21 1520</i>		Company: <i>ET</i>	
Relinquished by: <i>[Signature]</i>			Date/Time: <i>9/9/21 1635</i>		Company: <i>ET</i>		Received by: <i>Stephanie Hernandez</i>		Date/Time: <i>9/9/21 1635</i>		Company: <i>ETA-CHI</i>	
Relinquished by:			Date/Time:		Company:		Received by:		Date/Time:		Company:	
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 20 of 21		Cooler Temperature(s) °C and Other Remarks: <i>1.9-0.9</i>		9/10/2021				

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204980-1

Login Number: 204980

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

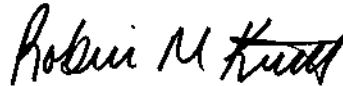
Laboratory Job ID: 500-204980-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/15/2021 3:24:09 PM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Job ID: 500-204980-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-204980-2**

Comments

No additional comments.

Receipt

The samples were received on 9/9/2021 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

GC Semi VOA

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-618487/1). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Client Sample ID: ED-R3SD-EB2

Lab Sample ID: 500-204980-6

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-204980-6	ED-R3SD-EB2	Water	09/09/21 13:45	09/09/21 16:35

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Client Sample ID: ED-R3SD-EB2

Lab Sample ID: 500-204980-6

Date Collected: 09/09/21 13:45

Matrix: Water

Date Received: 09/09/21 16:35

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00047		0.00047		mg/L		09/13/21 20:32	09/14/21 10:39	1
PCB-1221	<0.00047		0.00047		mg/L		09/13/21 20:32	09/14/21 10:39	1
PCB-1232	<0.00047		0.00047		mg/L		09/13/21 20:32	09/14/21 10:39	1
PCB-1242	<0.00047		0.00047		mg/L		09/13/21 20:32	09/14/21 10:39	1
PCB-1248	<0.00047		0.00047		mg/L		09/13/21 20:32	09/14/21 10:39	1
PCB-1254	<0.00047		0.00047		mg/L		09/13/21 20:32	09/14/21 10:39	1
PCB-1260	<0.00047		0.00047		mg/L		09/13/21 20:32	09/14/21 10:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		30 - 120	09/13/21 20:32	09/14/21 10:39	1
DCB Decachlorobiphenyl	66		30 - 140	09/13/21 20:32	09/14/21 10:39	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

GC Semi VOA

Prep Batch: 618401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204980-6	ED-R3SD-EB2	Total/NA	Water	3510C	
MB 500-618401/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-618401/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-618401/4-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 618487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-204980-6	ED-R3SD-EB2	Total/NA	Water	8082A	618401
MB 500-618401/1-A	Method Blank	Total/NA	Water	8082A	618401
LCS 500-618401/3-A	Lab Control Sample	Total/NA	Water	8082A	618401
LCSD 500-618401/4-A	Lab Control Sample Dup	Total/NA	Water	8082A	618401

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-204980-6	ED-R3SD-EB2	62	66
LCS 500-618401/3-A	Lab Control Sample	72	73
LCSD 500-618401/4-A	Lab Control Sample Dup	96	68
MB 500-618401/1-A	Method Blank	36	83

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-618401/1-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 618401

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34			1
PCB-1221	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34			1
PCB-1232	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34			1
PCB-1242	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34			1
PCB-1248	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34			1
PCB-1254	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34			1
PCB-1260	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34			1

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	36		30 - 120	09/13/21 20:32		09/14/21 09:34		1
DCB Decachlorobiphenyl	83		30 - 140	09/13/21 20:32		09/14/21 09:34		1

Lab Sample ID: LCS 500-618401/3-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 618401

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	0.00400	0.00343		mg/L		86	56 - 120	
PCB-1260	0.00400	0.00381		mg/L		95	53 - 137	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	72		30 - 120
DCB Decachlorobiphenyl	73		30 - 140

Lab Sample ID: LCSD 500-618401/4-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 618401

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits		RPD	
		Result	Qualifier						RPD	Limit
PCB-1016	0.00400	0.00366		mg/L		91	56 - 120	6	20	
PCB-1260	0.00400	0.00372		mg/L		93	53 - 137	2	20	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	96		30 - 120
DCB Decachlorobiphenyl	68		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Client Sample ID: ED-R3SD-EB2

Lab Sample ID: 500-204980-6

Date Collected: 09/09/21 13:45

Matrix: Water

Date Received: 09/09/21 16:35

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			618401	09/13/21 20:32	JP1	TAL CHI
Total/NA	Analysis	8082A		1	618487	09/14/21 10:39	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-204980-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Eurofins TestAmerica, Chicago

2417 Bond Street
 University Park IL 60484
 Phone (708) 534-5200 Phone (708) 534-5211

Chain of Custody Record



Client Information		Sampler: <i>F. JORISMEK</i>		Lab PM: Kintz, Robin M		Carrier Tracking No(s)		COC No: 500-92290-41114 1			
Client Contact: Garrett Welch		Phone: <i>224-250-5034</i>		E-Mail: Robin.Kintz@Eurofinset.com		State of Origin		Page: Page 1 of			
Company: Civil & Environmental Consultants Inc		PWSID:		Analysis Requested				Job #: <i>500-204980</i>			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested		 500-204980 COC				Preservation Codes			
City: Knoxville		TAT Requested (days)						A HCL M Hexane		B - NaOH N None	
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						C Zn Acetate O AsNaO2		D Nitric Acid P Na2O4S	
Phone: 865-340-4914(Tel)		PO #						E NaHSO4 Q Na2SO3		F MeOH R Na2S2O3	
Email: gwelch@cecinc.com		Purchase Order not required						G - Amchlor S H2SO4		H Ascorbic Acid T - TSP Dodecahydrate	
Project Name: Arconic PCB Rush Project - Lafayette IN		Project #: 50019033		WO #:		I Ice U Acetone		J DI Water V MCAA			
Site:		SSOW#:		Field Filtered Sample (Yes or No)		Total Number of containers		Other:			
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Perform: MS/MSD (Yes or No)	8082A - PCBs	Special Instructions/Note			
				Preservation Code:		X	N				
<i>ED-R3SD-003</i>		<i>1325</i>	<i>9/9/21</i>	<i>C</i>	<i>S</i>	X					
<i>ED-R3SD-004</i>		<i>1332</i>		<i>C</i>	<i>S</i>	X					
<i>ED-R3SD-005</i>		<i>1337</i>		<i>C</i>	<i>S</i>	X					
<i>ED-R3SD-006</i>		<i>1348</i>		<i>C</i>	<i>S</i>	X					
<i>ED-R3SL-S401</i>		<i>1304</i>		<i>C</i>	<i>S</i>	X					
<i>ED-R3SD-EB2</i>		<i>1345</i>	<i>✓</i>	<i>G</i>	<i>W</i>	X					
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)						
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months						
Deliverable Requested I II, III IV Other (specify)					Special Instructions/QC Requirements						
Empty Kit Relinquished by:		Date		Time		Method of Shipment					
Relinquished by: <i>[Signature]</i>		Date/Time: <i>9/9/21 1520</i>		Company: <i>CEC</i>		Received by: <i>[Signature]</i>		Date/Time: <i>9/9/21 1520</i>			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>9/9/21 1635</i>		Company: <i>ET</i>		Received by: <i>Stephanie Hernandez</i>		Date/Time: <i>9/9/21 1635</i>			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No		Page 14 of 15		Cooler Temperature(s) °C and Other Remarks: <i>1.9 → 0.9</i>		9/15/2021			

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Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-204980-2

Login Number: 204980

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-205085-1

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/14/2021 11:09:26 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Job ID: 500-205085-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-205085-1

Comments

No additional comments.

Receipt

The samples were received on 9/13/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-618398/2). The other surrogate was within limits; therefore, re-analysis was not performed.

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following sample was outside control limits: ED-R35D-003-1 (500-205085-1). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Client Sample ID: ED-R35D-003-1

Lab Sample ID: 500-205085-1

No Detections.

Client Sample ID: ED-R35D-005-1

Lab Sample ID: 500-205085-2

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-205085-1	ED-R35D-003-1	Solid	09/11/21 10:48	09/13/21 08:00
500-205085-2	ED-R35D-005-1	Solid	09/11/21 11:15	09/13/21 08:00

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Client Sample ID: ED-R35D-003-1

Lab Sample ID: 500-205085-1

Date Collected: 09/11/21 10:48

Matrix: Solid

Date Received: 09/13/21 08:00

Percent Solids: 76.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.43		0.43		mg/Kg	☼	09/13/21 16:50	09/14/21 01:03	20
PCB-1221	<0.43		0.43		mg/Kg	☼	09/13/21 16:50	09/14/21 01:03	20
PCB-1232	<0.43		0.43		mg/Kg	☼	09/13/21 16:50	09/14/21 01:03	20
PCB-1242	<0.43		0.43		mg/Kg	☼	09/13/21 16:50	09/14/21 01:03	20
PCB-1248	<0.43		0.43		mg/Kg	☼	09/13/21 16:50	09/14/21 01:03	20
PCB-1254	<0.43		0.43		mg/Kg	☼	09/13/21 16:50	09/14/21 01:03	20
PCB-1260	<0.43		0.43		mg/Kg	☼	09/13/21 16:50	09/14/21 01:03	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	45	S1-	49 - 129	09/13/21 16:50	09/14/21 01:03	20
DCB Decachlorobiphenyl	60		37 - 121	09/13/21 16:50	09/14/21 01:03	20

Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Client Sample ID: ED-R35D-005-1

Lab Sample ID: 500-205085-2

Date Collected: 09/11/21 11:15

Matrix: Solid

Date Received: 09/13/21 08:00

Percent Solids: 84.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.38		0.38		mg/Kg	☼	09/13/21 16:50	09/14/21 01:50	20
PCB-1221	<0.38		0.38		mg/Kg	☼	09/13/21 16:50	09/14/21 01:50	20
PCB-1232	<0.38		0.38		mg/Kg	☼	09/13/21 16:50	09/14/21 01:50	20
PCB-1242	<0.38		0.38		mg/Kg	☼	09/13/21 16:50	09/14/21 01:50	20
PCB-1248	<0.38		0.38		mg/Kg	☼	09/13/21 16:50	09/14/21 01:50	20
PCB-1254	<0.38		0.38		mg/Kg	☼	09/13/21 16:50	09/14/21 01:50	20
PCB-1260	<0.38		0.38		mg/Kg	☼	09/13/21 16:50	09/14/21 01:50	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	53		49 - 129	09/13/21 16:50	09/14/21 01:50	20
DCB Decachlorobiphenyl	65		37 - 121	09/13/21 16:50	09/14/21 01:50	20

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

GC Semi VOA

Prep Batch: 618388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-205085-1	ED-R35D-003-1	Total/NA	Solid	3541	
500-205085-2	ED-R35D-005-1	Total/NA	Solid	3541	
MB 500-618388/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-618388/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-205085-1 MS	ED-R35D-003-1	Total/NA	Solid	3541	
500-205085-1 MSD	ED-R35D-003-1	Total/NA	Solid	3541	

Analysis Batch: 618398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-205085-1	ED-R35D-003-1	Total/NA	Solid	8082A	618388
500-205085-2	ED-R35D-005-1	Total/NA	Solid	8082A	618388
MB 500-618388/1-A	Method Blank	Total/NA	Solid	8082A	618388
LCS 500-618388/2-A	Lab Control Sample	Total/NA	Solid	8082A	618388
500-205085-1 MS	ED-R35D-003-1	Total/NA	Solid	8082A	618388
500-205085-1 MSD	ED-R35D-003-1	Total/NA	Solid	8082A	618388

General Chemistry

Analysis Batch: 618275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-205085-1	ED-R35D-003-1	Total/NA	Solid	Moisture	
500-205085-2	ED-R35D-005-1	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(49-129)	(37-121)
500-205085-1	ED-R35D-003-1	45 S1-	60
500-205085-1 MS	ED-R35D-003-1	52	72
500-205085-1 MSD	ED-R35D-003-1	59	70
500-205085-2	ED-R35D-005-1	53	65
LCS 500-618388/2-A	Lab Control Sample	60	72
MB 500-618388/1-A	Method Blank	67	84

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-618388/1-A
Matrix: Solid
Analysis Batch: 618398

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 618388

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
PCB-1016	<0.33		0.33		mg/Kg		09/13/21 16:50	09/14/21 00:31			20
PCB-1221	<0.33		0.33		mg/Kg		09/13/21 16:50	09/14/21 00:31			20
PCB-1232	<0.33		0.33		mg/Kg		09/13/21 16:50	09/14/21 00:31			20
PCB-1242	<0.33		0.33		mg/Kg		09/13/21 16:50	09/14/21 00:31			20
PCB-1248	<0.33		0.33		mg/Kg		09/13/21 16:50	09/14/21 00:31			20
PCB-1254	<0.33		0.33		mg/Kg		09/13/21 16:50	09/14/21 00:31			20
PCB-1260	<0.33		0.33		mg/Kg		09/13/21 16:50	09/14/21 00:31			20

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Tetrachloro-m-xylene	67		49 - 129	09/13/21 16:50		09/14/21 00:31		20
DCB Decachlorobiphenyl	84		37 - 121	09/13/21 16:50		09/14/21 00:31		20

Lab Sample ID: LCS 500-618388/2-A
Matrix: Solid
Analysis Batch: 618398

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 618388

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits	
		Result	Qualifier					
PCB-1016	1.67	1.24		mg/Kg		75	57 - 120	
PCB-1260	1.67	1.34		mg/Kg		80	61 - 125	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	60		49 - 129
DCB Decachlorobiphenyl	72		37 - 121

Lab Sample ID: 500-205085-1 MS
Matrix: Solid
Analysis Batch: 618398

Client Sample ID: ED-R35D-003-1
Prep Type: Total/NA
Prep Batch: 618388

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits	
				Result	Qualifier					
PCB-1016	<0.43		2.14	1.69		mg/Kg	☼	79	57 - 120	
PCB-1260	<0.43		2.14	1.72		mg/Kg	☼	81	61 - 125	

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	52		49 - 129
DCB Decachlorobiphenyl	72		37 - 121

Lab Sample ID: 500-205085-1 MSD
Matrix: Solid
Analysis Batch: 618398

Client Sample ID: ED-R35D-003-1
Prep Type: Total/NA
Prep Batch: 618388

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits		RPD	
				Result	Qualifier						RPD	Limit
PCB-1016	<0.43		2.12	1.69		mg/Kg	☼	80	57 - 120	0	30	
PCB-1260	<0.43		2.12	1.65		mg/Kg	☼	78	61 - 125	4	30	

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	59		49 - 129
DCB Decachlorobiphenyl	70		37 - 121

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Client Sample ID: ED-R35D-003-1

Lab Sample ID: 500-205085-1

Date Collected: 09/11/21 10:48

Matrix: Solid

Date Received: 09/13/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	618275	09/13/21 09:14	LWN	TAL CHI

Client Sample ID: ED-R35D-003-1

Lab Sample ID: 500-205085-1

Date Collected: 09/11/21 10:48

Matrix: Solid

Date Received: 09/13/21 08:00

Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			618388	09/13/21 16:50	SMD	TAL CHI
Total/NA	Analysis	8082A		20	618398	09/14/21 01:03	SS	TAL CHI

Client Sample ID: ED-R35D-005-1

Lab Sample ID: 500-205085-2

Date Collected: 09/11/21 11:15

Matrix: Solid

Date Received: 09/13/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	618275	09/13/21 09:14	LWN	TAL CHI

Client Sample ID: ED-R35D-005-1

Lab Sample ID: 500-205085-2

Date Collected: 09/11/21 11:15

Matrix: Solid

Date Received: 09/13/21 08:00

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			618388	09/13/21 16:50	SMD	TAL CHI
Total/NA	Analysis	8082A		20	618398	09/14/21 01:50	SS	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Chain of Custody Record



Client Information		Sampler: <i>ZORBEASKL</i>		Lab PM: Kintz Robin M		Carr: 500-205085 COC		COG No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone: <i>224-250-5434</i>		E-Mail: Robin Kintz@Eurofinset.com		State:		Page: Page 1 of 1	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers		Job #: <i>500-205085</i>	
City: Knoxville		TAT Requested (days): <i>24 HR</i>						Preservation Codes	
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B NaOH N - None	
Email: gwelch@cecinc.com		WO #:						C Zn Acetate O AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D Nitric Acid P - Na2O4S		E NaHSO4 Q Na2SO3		F - MeOH R Na2S2O3	
Site:		SSOW#:		G - Amchlor S - H2SO4		H - Ascorbic Acid T - TSP Dodecahydrate		I Ice U - Acetone	
J - DI Water V - MCAA		K EDTA W pH 4-5		L EDA Z other (specify)		Other:			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code.	
<i>1 ED-R3SD-003-1</i>		<i>1048</i>		<i>9/11/21</i>		<i>C</i>		<i>S</i>	
<i>2 ED-R3SD-005-1</i>		<i>1115</i>		<i>9/11/21</i>		<i>G</i>		<i>S</i>	
<i>3 ED-R3SD-EB3</i>		<i>1130</i>		<i>9/11/21</i>		<i>G</i>		<i>W</i>	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Deliverable Requested I, II, III, IV, Other (specify)				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>9/11/21 1300</i>		Company: <i>CCL</i>		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by: <i>[Signature]</i>		Date/Time: <i>9-13-21 0800</i>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No:		Cooler Temperature(s) °C and Other Remarks: <i>1.9 -> 0.9</i>					

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-205085-1

Login Number: 205085

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-205085-2

Client Project/Site: Arconic - Elliot Ditch - Lafayette, IN
Revision: 1

For:

Civil & Environmental Consultants Inc
2704 Cherokee Farm Way
Suite 101
Knoxville, Tennessee 37920

Attn: Garrett Welch



Authorized for release by:
9/21/2021 11:21:14 AM

Robin Kintz, Project Manager II
(708)534-5200
Robin.Kintz@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Job ID: 500-205085-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

**Job Narrative
500-205085-2**

Comments

No additional comments.

Revision

The report being provided is a revision of the original report sent on 9/17/2021. The report (revision 1) is being revised due to: The report was revised to correct the client sample identification in the report.

Receipt

The samples were received on 9/13/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.9° C.

GC Semi VOA

Method 8082A: Surrogate Tetrachloro-m-xylene recovery for the following Continuing Calibration Verification (CCVIS) was outside control limits: (CCVIS 500-618487/1). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Client Sample ID: ED-R3SD-EB3

Lab Sample ID: 500-205085-3

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-205085-3	ED-R3SD-EB3	Water	09/11/21 11:30	09/13/21 08:00

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Client Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Client Sample ID: ED-R3SD-EB3

Lab Sample ID: 500-205085-3

Date Collected: 09/11/21 11:30

Matrix: Water

Date Received: 09/13/21 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 11:11	1
PCB-1221	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 11:11	1
PCB-1232	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 11:11	1
PCB-1242	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 11:11	1
PCB-1248	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 11:11	1
PCB-1254	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 11:11	1
PCB-1260	<0.00037		0.00037		mg/L		09/13/21 20:32	09/14/21 11:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		30 - 120	09/13/21 20:32	09/14/21 11:11	1
DCB Decachlorobiphenyl	58		30 - 140	09/13/21 20:32	09/14/21 11:11	1

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

GC Semi VOA

Prep Batch: 618401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-205085-3	ED-R3SD-EB3	Total/NA	Water	3510C	
MB 500-618401/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-618401/3-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-618401/4-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 618487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-205085-3	ED-R3SD-EB3	Total/NA	Water	8082A	618401
MB 500-618401/1-A	Method Blank	Total/NA	Water	8082A	618401
LCS 500-618401/3-A	Lab Control Sample	Total/NA	Water	8082A	618401
LCSD 500-618401/4-A	Lab Control Sample Dup	Total/NA	Water	8082A	618401

Surrogate Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX1	DCBP1
		(30-120)	(30-140)
500-205085-3	ED-R3SD-EB3	67	58
LCS 500-618401/3-A	Lab Control Sample	72	73
LCSD 500-618401/4-A	Lab Control Sample Dup	96	68
MB 500-618401/1-A	Method Blank	36	83

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: Civil & Environmental Consultants Inc
 Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-618401/1-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 618401

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1221	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1232	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1242	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1248	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1254	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1
PCB-1260	<0.00040		0.00040		mg/L		09/13/21 20:32	09/14/21 09:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	36		30 - 120	09/13/21 20:32	09/14/21 09:34	1
DCB Decachlorobiphenyl	83		30 - 140	09/13/21 20:32	09/14/21 09:34	1

Lab Sample ID: LCS 500-618401/3-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 618401

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	0.00400	0.00343		mg/L		86	56 - 120
PCB-1260	0.00400	0.00381		mg/L		95	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	72		30 - 120
DCB Decachlorobiphenyl	73		30 - 140

Lab Sample ID: LCSD 500-618401/4-A
Matrix: Water
Analysis Batch: 618487

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 618401

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
PCB-1016	0.00400	0.00366		mg/L		91	56 - 120	6	20
PCB-1260	0.00400	0.00372		mg/L		93	53 - 137	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	96		30 - 120
DCB Decachlorobiphenyl	68		30 - 140

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Client Sample ID: ED-R3SD-EB3

Lab Sample ID: 500-205085-3

Date Collected: 09/11/21 11:30

Matrix: Water

Date Received: 09/13/21 08:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	3510C			618401	09/13/21 20:32	JP1	TAL CHI
Total/NA	Analysis	8082A		1	618487	09/14/21 11:11	JBj	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Arconic - Elliot Ditch - Lafayette, IN

Job ID: 500-205085-2

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-22

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Chain of Custody Record



Client Information		Sampler <i>ZORBEASKL</i>		Lab PM: Kintz Robin M		Carr: 500-205085 COC		COG No: 500-92290-41114 1	
Client Contact: Garrett Welch		Phone <i>224-250-5434</i>		E-Mail: Robin Kintz@Eurofinset.com		State:		Page: Page 1 of 1	
Company: Civil & Environmental Consultants Inc				PWSID:		Analysis Requested			
Address: 2704 Cherokee Farm Way Suite 101		Due Date Requested:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8082A - PCBs		Total Number of containers		Job #: <i>500-205085</i>	
City: Knoxville		TAT Requested (days): <i>24 HR</i>						Preservation Codes	
State, Zip: TN 37920		Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No						A HCL M - Hexane	
Phone: 865-340-4914(Tel)		PO #: Purchase Order not required						B NaOH N - None	
Email: gwelch@cecinc.com		WO #:						C Zn Acetate O AsNaO2	
Project Name: Arconic PCB Rush Project - Lafayette, IN		Project #: 50019033		D Nitric Acid P - Na2O4S		E NaHSO4 Q Na2SO3		F - MeOH R Na2S2O3	
Site:		SSOW#:		G - Amchlor S - H2SO4		H - Ascorbic Acid T - TSP Dodecahydrate		I Ice U - Acetone	
J - DI Water V - MCAA		K EDTA W pH 4-5		L EDA Z other (specify)		Other:			
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Preservation Code.	
<i>1 ED-R3SD-003-1</i>		<i>1048</i>		<i>9/11/21</i>		<i>C</i>		<i>S</i>	
<i>2 ED-R3SD-005-1</i>		<i>1115</i>		<i>9/11/21</i>		<i>G</i>		<i>S</i>	
<i>3 ED-R3SD-EB3</i>		<i>1130</i>		<i>9/11/21</i>		<i>G</i>		<i>W</i>	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)					
Deliverable Requested I, II, III, IV, Other (specify)				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <i>[Signature]</i>		Date/Time: <i>9/11/21 1300</i>		Company: <i>CCL</i>		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by: <i>[Signature]</i>		Date/Time: <i>9-13-21 0800</i>	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No:		Cooler Temperature(s) °C and Other Remarks: <i>1.9 -> 0.9</i>					

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 500-205085-2

Login Number: 205085

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: James, Jeff A

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX XV

SPILL REPORT

Spill and Release Report			
Discharge/Discovery Date	9/8/2021	Time	15:30
Facility Name	Elliott Ditch - Reach 1-3 Sediment & Soil Remediation (Arconic Lafayette, LLC)		
Facility Location (Address/Lat-Long/Section Township Range)	Reach 3 – Elliott Ditch – Duke Energy Property, Lafayette, Indiana Latitude: 40°22'18.14"N, Longitude: 86°52'51.66"W Tippecanoe County, Indiana; Wea Township.		
Name of reporting individual	Garrett Welch	Telephone #	865-977-9997
Type of material discharged	Hydraulic oil	Estimated total quantity discharged	Gallons/Barrels <25 gallons
Source of the discharge	Hydraulic line on John Deere 350G Long Reach Excavator.	Media affected	<input type="checkbox"/> Soil
			<input checked="" type="checkbox"/> Water (specify) Ponded surface water contained within active excavation area of Elliott Ditch
			<input checked="" type="checkbox"/> Other (specify) Sediment to be removed as part of remedial activities.
Further Description of Discharge	The incident occurred during remediation activities in Reach 3 of Elliott Ditch in Lafayette, Indiana. The remedial activities were being completed on behalf of Arconic Lafayette, LLC on Duke Energy Property. During excavation activities, excavator was being operated by O6ENV to remove sediment when a hydraulic line broke after getting caught on an overhanging branch. The hydraulic line subsequently released hydraulic fluid into the active excavation footprint. The hydraulic fluid was contained within the excavation footprint. Ponded water within the active excavation developed a sheen due to the hydraulic oil; however, the ponded water did not mobilize downstream.		
Actions Taken	Since excavation activities were already underway, the original spill was contained within the excavation footprint and was estimated to be less than 25 gallons. O6ENV deployed booms and absorbent pads from the on-Site spill kit. The booms were deployed around the excavation as a precaution. Impacted sediment, brush, and surface water was removed from Elliott Ditch and containerized for disposal by O6ENV. The Spill was reported to IDEM on September 9, 2021, per the direction of Duke Energy. The hydraulic oil and affected media were excavated and removed from Elliott Ditch and properly disposed offsite.		
Damage or injuries	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (specify)	Evacuation needed?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (specify)
Organizations and individuals contacted	<input type="checkbox"/> National Response Center 800-424-8802 Time: NA Because the release was not in navigable waters or adjoining shorelines, notification was determined not necessary.		
	<input checked="" type="checkbox"/> Cleanup contractor (O6ENV) Time: 1530 - O6ENV was already onsite.		
	<input checked="" type="checkbox"/> Facilities – Arconic Lafayette, LLC – Robert Prezbindowski Time: 1600 Duke Energy – Jessica Kenner Time: 1600		

State Agency (IDEM) Time: 1030 (9/9/2021)

Duke Energy requested that the IDEM be notified.

Note: CEC discussed the incident with Duke Energy on 9/8/2021 at 1530. CEC explained the incident and incident response. Duke Energy understood the approach and indicated that they would follow-up should a formal notice be required to the IDEM (i.e., a formal notice required per the direction of Duke Energy). Ultimately, Duke Energy did not follow-up until 9/8/2021 resulting in the regulatory notification being submitted beyond the required reporting period. IDEM notified Mr. Don Stiliz of the incident, IDEM project manager for the remediation work. Mr. Stiliz requested a summary of the spill be provided in the Post Construction Report.

Other (Specify) Time: NA

Photographs



Photo 1: Hydraulic oil on ponded surface water contained in the active excavation footprint