
APPENDIX XIII

WAYPOINT INCREMENTAL SAMPLE METHOD PREPARATION SOP

Uncontrolled Document

Standard Operating Procedure

For

Incremental Sampling Method
Sample Preparation

Prepared by: Jimmy R Ferguson
Digitally signed by Jimmy R Ferguson II
Date: 2020.04.29 13:51:36 -05'00'

Jimmy Ferguson

Chief Technical Officer: Michael T. Kauffman
Digitally signed by Michael T. Kauffman
Date: 2020.04.29 13:53:55 -05'00'

Michael Kauffman

1. Identification of Test Method

This standard operating procedure is identified as Incremental Sampling Method and Sample Preparation. Laboratory records refer to this procedure as ISM sample prep.

2. Applicable Matrix or Matrices

This document outlines how to prepare soil samples for routine soils analysis according to IRTC – Incremental Sampling Methodology, February 2012. This method is applicable to all soil samples collected and delivered to the laboratory by ISM protocol.

3. Detection Limits

Not applicable.

4. Scope and Application

This method presents laboratory practices and options available to process and analyze field samples obtained via ISM. Multiple options are available depending on the contaminants (metals, SVOCs, etc.). The purpose of this document is to detail the procedures employed by this lab's personnel in accomplishing these tasks.

5 Summary of Test Method

Samples collected via ISM are processed by the laboratory using the following procedures:

- Initial Sample Screening
- Sample Conditioning
- Particle Size Reduction
- Sample Mixing
- Splitting/Subsampling

These procedures are tailored to the specific laboratory analytical procedures required for extraction/analysis (Target Analytes). The specific laboratory processes used to handle incremental samples is influenced by the specific target analyte lists and required quality control objectives.

6 Equipment and Supplies

6.1 Drying Oven: Based on the project plan and target analyte list, two elevated temperature options are available: 38°C and 103°C

6.2 Mortar and pestle

6.3 Various mesh sieves: The most common sieves are #10 and #16. The laboratory has access to various mesh sieves based on the client requirements.

6.4 Riffle Splitter and catch pans

6.5 Tumbler: Rotary Agitation Apparatus: Five-port, capable of end-over-end rotation at 30 ± 2 rpm. Each rotator must be checked weekly while full to ensure proper rotations per minute. This verification is documented in a log book and available for review.

7 Reagents and Standards

Not applicable.

8 Sample Collection, Preservation, Shipment and Storage

8.1 Sample Collection

Representative samples are collected using ISM procedures.

8.2 Sample Preservation

Chemical and or physical preservation may be necessary based on the analytical procedures. See specific laboratory extraction SOP for method required preservation requirements.

8.3 Sample Shipment and Handling

Soil sample preparation methods and sample handling prior to analysis can greatly affect soil test results. Drying and method of drying are critical to achieving accurate test results. Procedures for drying soil must, therefore, be strictly followed and carefully monitored. Common shipping services such as USPS, UPS and FedEx may be used. Overnight and routine service is acceptable depending on urgency of testing. Refer to specific analytical SOP's for shipping requirements.

Samples received from outside the USA must be handled separately from the normal domestic samples. A log must be kept of the receipt, with thermal treatment at 250°F for 2 hours and subsequent disposal of the samples. All soil received from outside the USA must be treated in this manner.

8.4 Sample Storage

See specific laboratory extraction/analytical SOP for method requirements.

9 Quality Control

See specific laboratory extraction/analytical SOP for method requirements.

10 Calibration

10.1 Thermometers

Check the thermometer or oven temperature gauge to ensure its calibration has not expired.

10.2 Rotator/Tumbler

Check the RPM verification has been performed prior to use.

11 Procedure

The specific laboratory processes to handle incremental samples is influenced by the specific analytes of concern and the objectives of the characterization process. The volatility and thermal stability of the contaminants of concern will assist in determining the options for sample conditioning and the objectives for risk assessment will influence the choices related to particle size reduction. These procedures will include these options. Adherence to specifics in a site project plan are mandatory.

11.1 Initial Sample Screening

- 11.1.1 During the initial planning of the project, it may be determined that materials such as rocks, vegetation debris (leaves, sticks, roots, etc.) and free (decantable) water should be excluded from the sample. If the removal of these materials is requested in the project plan, the laboratory technician will document this process on the ISM laboratory bench sheet.
- 11.1.2 Samples should be removed from the storage area and allowed to settle. Immediately open each container individually and determine the presence or absence of water and debris.
- 11.1.3 Decantable water may be poured off the top of the settled container and discarded. Document this procedure if applicable.
- 11.1.4 Vegetation and oversized material may be manually removed with tweezers or spatulas. Document this procedure if applicable.

11.2 Sample Conditioning

- 11.2.1 Sample conditioning is usually needed before additional mixing or particle size reduction are used. This process prepared the sample for subsequent processing (sieving, grinding and subsampling). In all cases the vapor pressure and boiling point of the analytes of concern should be determined and the impact of this step evaluated for loss potential.
- 11.2.2 This procedure is dependent on the analytes of concern and should be addressed in the project plan. If volatile organics are required, this procedure must be omitted.
- 11.2.3 Some soil samples are dry enough as received to be handled with mixing, particle size reduction and subsampling techniques described below. However, most soil sample require moisture modification before further processing.
- 11.2.4 Air drying is appropriate when the analytes are chemically stable and have sufficiently high boiling points so that they are unlikely to volatilize during the extended air exposure. Drying at ambient temperature may take up to several days and impact the laboratory turnaround time.
- 11.2.5 Two elevated temperatures are available by the laboratory for sample conditioning if the loss potential has been determined or the project plan specifically requests this. Drying ovens are available at 38°C and 103°C.
- 11.2.6 Each individual sample increment will be dried (temperature determined by target analyte and/or project plan) in the original container received by the laboratory. The time required will be dependent on the moisture content of the samples, should be kept to a minimum and sufficient for the next step of particle size reduction.
- 11.2.7 This drying procedure does not require determination of actual percent moisture. Multiple weighing of the dried sample is not required. The sample only needs to be dry enough to facilitate proper mechanical function of the subsequent processing equipment.

11.3 Particle Size Reduction

- 11.3.1 The determination of the particle size reduction technique and maximum target particle size should be made during the project planning and specified to the laboratory.
- 11.3.2 Sample disaggregation is a gently grinding technique used on dry, crushable soil. It breaks up the soil agglomerates but does not mill small pebbles and other hard particles. This may be performed by taking the dry sample and crushing it on a sieve with a pestle to promote breakup of the soil agglomerates. A #10 sieve (2 mm) is the most common size.
- 11.3.3 Individual sample increments may undergo sample disaggregation prior to final particle size reduction. Final sample size reduction may include the ability to pass through a #60 sieve (250 µm).
- 11.3.4 Material that does not pass through the final sieve size should be subjected to further particle size reduction and again attempted to pass through the final sieve size. This process will continue until as much of the increment can pass through the sieve as possible.
- 11.3.5 The sieved material from individual sample increments will be collected and stored prior to combining sample increments and further processing.

11.3.6 The sieve size and any observations for individual sample increments are recorded on the laboratory bench sheet.

11.3.7 All sieves are thoroughly cleaned in-between sample increments and blown dry with high pressure nitrogen gas.

11.4 Sample Mixing

11.4.1 Based on information from the project plan, individual sample increments that have undergone the above processes, will be combined in a container that is appropriate for the extraction/analytical techniques requested.

11.4.2 The container selected for mixing must have adequate headspace to allow for complete mixing.

11.4.3 The mixing is performed using a tumbler, verified at 30 RPM, for a minimum of 1 hour.

11.5 Analytical Splitting and Subsampling

11.5.1 Although a variety of techniques may be employed to complete the incremental subsampling process for target analyte determination, the laboratory defaults to riffle splitting.

11.5.2 The riffle splitting divides the sample into two equal portions by directing the sample portions into opposite pans with alternating chutes. It is used sequentially to further subdivide a sample into smaller aliquots.

11.5.3 The division of the sample continues until an adequate subsample has been collected. At this point, the entire smaller aliquot is used for the analyte determination procedure.

11.5.4 All of the portions, not used for further division are returned to the original container.

11.5.5 If a sample has been selected as the quality control sample (MS/MSD), three times the aliquot will be collected. The standard laboratory procedures for sample splitting and spiking will be used for the final extraction method required.

11.5.6 All riffle devices are thoroughly cleaned in-between sample aliquots and blown dry with high pressure nitrogen gas.

12 Pollution Prevention

The preparation of excessive volumes of laboratory reagents and standards shall be avoided so that waste and potential for pollution are minimized. Samples, reagents and standards shall be disposed in compliance with the laboratory waste disposal program and applicable waste disposal regulations. With the consent of the client, the samples may be returned to their origin for treatment.

13 Corrective Actions for Out-Of-Control Data

The process for handling corrective actions is found in the laboratory Quality Manual.

14 Contingencies for Handling Out-Of-Control or Unacceptable Data

The process for handling unacceptable and out of control data is found in the laboratory Quality Manual.

15 Waste Management

The laboratory Safety Manual identifies proper waste management practices for the chemicals and biological materials used in this procedure. Samples are stored and discarded in accordance with the laboratory Quality Manual.

16 References

IRTC – Incremental Sampling Methodology, February 2012

Revision History

Date	Revision	Comments
05/01/20	ISM Soil Sample Prep 050120	Initial Document

APPENDIX XIV

CONFIRMATION SAMPLING ANALYTICAL REPORTS

5/29/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-142-0138
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 5/21/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

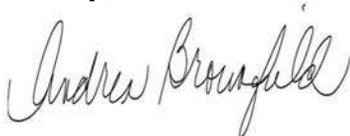
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-142-0138
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
85388	ED-DU11- EB	Aqueous	05/20/2020 11:07	05/21/2020
85635	ED-DU11- Primary - Composite	Solids	05/19/2020	05/21/2020
85660	ED-DU11- Secondary - Composite	Solids	05/19/2020	05/21/2020
85685	ED-DU11- Tertiary - Composite	Solids	05/20/2020	05/21/2020
85715	ED-DU11- Primary - DUP	Solids	05/19/2020	05/21/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/21/2020



Report Number : **20-142-0138**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85388**

Matrix: **Aqueous**

Sample ID : **ED-DU11- EB**

Sampled: **5/20/2020 11:07**

Analytical Method: 8082A

Prep Batch(es): L493185 05/26/20 13:40

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	05/27/20 15:03	VIC	L493587
Aroclor 1221	<0.50	µg/L	0.50	1	05/27/20 15:03	VIC	L493587
Aroclor 1232	<0.50	µg/L	0.50	1	05/27/20 15:03	VIC	L493587
Aroclor 1242	<0.50	µg/L	0.50	1	05/27/20 15:03	VIC	L493587
Aroclor 1248	<0.50	µg/L	0.50	1	05/27/20 15:03	VIC	L493587
Aroclor 1254	<0.50	µg/L	0.50	1	05/27/20 15:03	VIC	L493587
Aroclor 1260	<0.50	µg/L	0.50	1	05/27/20 15:03	VIC	L493587
Surrogate: Decachlorobiphenyl	77.5		Limits: 36-116%	1	05/27/20 15:03	VIC	L493587
Surrogate: Tetrachloro-m-xylene	79.1		Limits: 25-123%	1	05/27/20 15:03	VIC	L493587

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/21/2020



Report Number : **20-142-0138**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85635**

Matrix: **Solids**

Sample ID : **ED-DU11- Primary - Composite**

Sampled: **5/19/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): L493421 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 20:05	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 20:05	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 20:05	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 20:05	VIC	L493920
Aroclor 1248	4.66	mg/Kg	1.00	50	05/29/20 11:12	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 20:05	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 20:05	VIC	L493920
Surrogate: Decachlorobiphenyl	67.9		Limits: 25-125%	1	05/28/20 20:05	VIC	L493920
Surrogate: Tetrachloro-m-xylene	81.9		Limits: 25-125%	1	05/28/20 20:05	VIC	L493920

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/21/2020



Report Number : **20-142-0138**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85660**

Matrix: **Solids**

Sample ID : **ED-DU11- Secondary - Composite**

Sampled: **5/19/2020 0:00**

Analytical Method: 8082A **Prep Batch(es):** L493421 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 20:27	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 20:27	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 20:27	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 20:27	VIC	L493920
Aroclor 1248	2.88	mg/Kg	1.00	50	05/29/20 11:33	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 20:27	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 20:27	VIC	L493920
Surrogate: Decachlorobiphenyl	77.7		Limits: 25-125%	1	05/28/20 20:27	VIC	L493920
Surrogate: Tetrachloro-m-xylene	76.7		Limits: 25-125%	1	05/28/20 20:27	VIC	L493920

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/21/2020



Report Number : **20-142-0138**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85685**

Matrix: **Solids**

Sample ID : **ED-DU11- Tertiary - Composite**

Sampled: **5/20/2020 0:00**

Analytical Method: 8082A **Prep Batch(es):** L493421 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 20:49	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 20:49	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 20:49	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 20:49	VIC	L493920
Aroclor 1248	3.19	mg/Kg	1.00	50	05/29/20 11:55	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 20:49	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 20:49	VIC	L493920
Surrogate: Decachlorobiphenyl	77.1		Limits: 25-125%	1	05/28/20 20:49	VIC	L493920
Surrogate: Tetrachloro-m-xylene	84.0		Limits: 25-125%	1	05/28/20 20:49	VIC	L493920

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

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2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
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Report Number : **20-142-0138**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85715**

Matrix: **Solids**

Sample ID : **ED-DU11- Primary - DUP**

Sampled: **5/19/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L493421** 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 21:11	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 21:11	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 21:11	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 21:11	VIC	L493920
Aroclor 1248	3.11	mg/Kg	1.00	50	05/29/20 12:17	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 21:11	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 21:11	VIC	L493920
Surrogate: Decachlorobiphenyl	69.2		Limits: 25-125%	1	05/28/20 21:11	VIC	L493920
Surrogate: Tetrachloro-m-xylene	77.7		Limits: 25-125%	1	05/28/20 21:11	VIC	L493920

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-142-0138

QC Prep: L493185 **QC Analytical Batch(es):** L493587
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L493185 Matrix: AQU
Associated Lab Samples: 85388

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1221	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1232	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1242	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1248	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1254	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1260	µg/L	< 0.200	0.200	05/27/20 20:03		
Decachlorobiphenyl (S)				05/27/20 20:03	54.0	36-116
Tetrachloro-m-xylene (S)				05/27/20 20:03	73.6	25-123

Laboratory Control Sample & LCSD LCS-L493185 LCSD-L493185

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	4.62	5.03	92.4	101	44-116	8.4	20.0
Aroclor 1260	µg/L	5.00	4.23	4.70	84.6	94.0	43-129	10.5	20.0
Decachlorobiphenyl (S)					63.0	57.0	36-116		
Tetrachloro-m-xylene (S)					71.8	78.0	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-142-0138

QC Prep: L493421 **QC Analytical Batch(es):** L493920
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L493421 Matrix: SOL
 Associated Lab Samples: 85635, 85660, 85685, 85715

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1221	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1232	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1242	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1248	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1254	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1260	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Decachlorobiphenyl (S)				05/28/20 17:33	78.0	25-125
Tetrachloro-m-xylene (S)				05/28/20 17:33	76.0	25-125

Laboratory Control Sample LCS-L493421

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.158	94.6	50-125
Aroclor 1260	mg/Kg	0.167	0.171	102	50-125
Decachlorobiphenyl (S)				81.0	25-125
Tetrachloro-m-xylene (S)				82.5	25-125

Matrix Spike & Matrix Spike Duplicate L 85685-MS-L493421 L 85685-MSD-L493421

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.100	0.105	3.22	3.31	3220*	3150*	40-140	2.7	30
Decachlorobiphenyl (S)							85.8	82.6	25-125		
Tetrachloro-m-xylene (S)							87.5	82.6	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-142-0138**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID: 137315
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-142-0138
 25226
 05-21-2020
 16:45:37
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU11	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/19/20	1314	ED-DU11-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/19/20	1315	ED-DU11-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0755	ED-DU11-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/19/20	1316	ED-DU11-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0757	ED-DU11-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0758	ED-DU11-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/19/20	1317	ED-DU11-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0800	ED-DU11-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments Waypoint to generate duplicate sample from ED-DU11 - Primary for PCB Analysis.			
Ice Y/N	Custody Seals Y/N	Lab Comments Cooler(s) X Container(s) Custody Seals received on:	Relinquished by: (SIGNATURE) 	Date Time 5/20/20 1700	Received by: (SIGNATURE)	Date Time	
Blank/Cooler Temp 1.0°C T98 07°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) 	Date Time 5/21/20 0955	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	



Kit ID:	137315
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0138
 25226
 05-21-2020
 16:45:37

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU11	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	0801	ED-DU11-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0802	ED-DU11-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0803	ED-DU11-04S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0804	ED-DU11-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0805	ED-DU11-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0806	ED-DU11-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0807	ED-DU11-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0808	ED-DU11-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See pg 1. Received on: Cooler(s) Container(s)			
(Y/N)	(Y/N) TP		Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)		Date Time
			[Signature]		5/20/20 1700			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)		Date Time
1.0°C TP 0.7°C TP						[Signature]		5/21/20 0955



Kit ID: 137315
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-142-0138
 25226
 05-21-2020
 16:45:37
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU11	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	0809	ED-DU11-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0810	ED-DU11-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0811	ED-DU11-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0812	ED-DU11-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0813	ED-DU11-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0814	ED-DU11-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0815	ED-DU11-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0816	ED-DU11-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments Sec pg. 1				Custody Seals received on:	
Ice Y/N	Custody Seals Y/N	Lab Comments TP	Relinquished by: (SIGNATURE) 		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp 1.0°C T98 0.7L TP							Received by: (SIGNATURE) 		Date	Time
									5/21/20	0955



Kit ID: 137315
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-142-0138
 25226
 05-21-2020
 16:45:37
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU11	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # <i>Arconic - Elliott Ditch</i>

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	0817	ED-DU11-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0818	ED-DU11-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0819	ED-DU11-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0820	ED-DU11-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0821	ED-DU11-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0820	ED-DU11-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0821	ED-DU11-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0822	ED-DU11-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments see pg. 1			
Ice Y/N	Custody Seals Y/N TP	Lab Comments	Relinquished by: (SIGNATURE) 	Date Time 5/20/20 1700	Received by: (SIGNATURE) 		Date Time 5/20/20 1955	
Blank/Cooler Temp 1.0°C TP 0.7°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) 		Date Time 5/21/20 0955	



Kit ID:	137315
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-142-0138
 25226
 05-21-2020
 16:45:37
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU11	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Azonic - ELLIOTT DITCH

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	0823	ED-DU11-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0824	ED-DU11-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0825	ED-DU11-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0826	ED-DU11-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0827	ED-DU11-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0828	ED-DU11-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0829	ED-DU11-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0830	ED-DU11-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien	See pg. 1		received on:	
(Y/N)	(Y/N) TP		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	Cooler(s) / Container
				5/20/20 1700			
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
						5/21/20	0955



Kit ID: 137315
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-142-0138
 25226
 05-21-2020
 16:45:37
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU11	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # <i>ARCONT - Elliott Ditch</i>

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	0831	ED-DU11-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0832	ED-DU11-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0833	ED-DU11-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0834	ED-DU11-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0835	ED-DU11-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0836	ED-DU11-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0837	ED-DU11-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0838	ED-DU11-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments See pg 1.				Custody Seals received on:	
Ice Y/N	Custody Seals Y/N TP	Lab Comments	Relinquished by: (SIGNATURE) <i>[Signature]</i>	Date 5/20/20	Time 1700	Received by: (SIGNATURE) <i>[Signature]</i>	Date	Time	Container(s) Cooler(s)
Blank/Cooler Temp 1.0°C TP 0.7°C TP			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) <i>[Signature]</i>	Date	Time 5/21/20 0955	



Kit ID: 137315
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU11	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	0839	ED-DU11-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0840	ED-DU11-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0841	ED-DU11-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0842	ED-DU11-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0843	ED-DU11-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0844	ED-DU11-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0845	ED-DU11-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0846	ED-DU11-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See pg. 1				Custody Seals received on: Cooler(s) / Container(s)	
Ice Y/N	Custody Seals Y/N TP	Lab Comments	Relinquished by: (SIGNATURE) 	Date Time 5/20/20 1700	Received by: (SIGNATURE)		Date Time			
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time			
Blank/Cooler Temp 1.0°C TP 0.7°C TSK			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) 		Date Time 5/21/20 0955			



Kit ID:	137315
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-142-0138
 25226
 05-21-2020
 16:45:37

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU11			
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	0847	ED-DU11-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0848	ED-DU11-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0849	ED-DU11-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0850	ED-DU11-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0851	ED-DU11-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0852	ED-DU11-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0853	ED-DU11-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0854	ED-DU11-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien	See pg. 1			
(Y/N)	(Y/N) TP		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	Custody Seals received on: Cooler(s) / Container(s)
				5/20/20 1700			
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
						5/21/20 0955	



Kit ID:	137315
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



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 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU11	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	0855	ED-DU11-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0856	ED-DU11-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0857	ED-DU11-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0858	ED-DU11-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0859	ED-DU11-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0900	ED-DU11-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0901	ED-DU11-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	0902	ED-DU11-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See pg. 1 Custody Seals received on: Cooler(s) Container(s)			
Y/N	Y/N TP		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			<i>[Signature]</i>	5/20/20 1700				
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
					<i>[Signature]</i>	5/21/20 0955		
Blank/Cooler Temp								
1.0°C TP								
0.7°C T98								



Kit ID:	137315
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-142-0138
 25226
 05-21-2020
 16:45:37
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226		Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)			Purchase Order Number		
Site Name DU11		Project Number 172-367		<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com			Site/Facility ID # ARLONIC - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
5/20/20	1107	ED-DU11-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs	

Custody Seals
 received on:
Cooler(s) / Container(s)

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments TP	Jenny O'Brien		see pg. 1			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
1.0°C TP 0.7°C TP								

5/29/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-142-0137
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 5/21/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

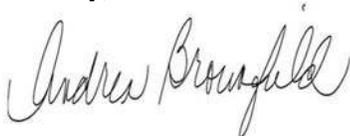
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-142-0137
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
85396	ED-DU10-EB	Aqueous	05/20/2020 15:55	05/21/2020
85485	ED-DU10-Primary - Composite	Solids	05/20/2020	05/21/2020
85510	ED-DU10-Secondary - Composite	Solids	05/20/2020	05/21/2020
85535	ED-DU10-Tertiary - Composite	Solids	05/20/2020	05/21/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/21/2020



Report Number : **20-142-0137**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85396**

Matrix: **Aqueous**

Sample ID : **ED-DU10-EB**

Sampled: **5/20/2020 15:55**

Analytical Method: 8082A **Prep Batch(es):** L493185 05/26/20 13:40

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	05/27/20 14:41	VIC	L493587
Aroclor 1221	<0.50	µg/L	0.50	1	05/27/20 14:41	VIC	L493587
Aroclor 1232	<0.50	µg/L	0.50	1	05/27/20 14:41	VIC	L493587
Aroclor 1242	<0.50	µg/L	0.50	1	05/27/20 14:41	VIC	L493587
Aroclor 1248	<0.50	µg/L	0.50	1	05/27/20 14:41	VIC	L493587
Aroclor 1254	<0.50	µg/L	0.50	1	05/27/20 14:41	VIC	L493587
Aroclor 1260	<0.50	µg/L	0.50	1	05/27/20 14:41	VIC	L493587
Surrogate: Decachlorobiphenyl	51.5		Limits: 36-116%	1	05/27/20 14:41	VIC	L493587
Surrogate: Tetrachloro-m-xylene	80.0		Limits: 25-123%	1	05/27/20 14:41	VIC	L493587

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/21/2020



Report Number : **20-142-0137**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85485**

Matrix: **Solids**

Sample ID : **ED-DU10-Primary - Composite**

Sampled: **5/20/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L493421** 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 19:00	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 19:00	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 19:00	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 19:00	VIC	L493920
Aroclor 1248	15.1	mg/Kg	1.33	200	05/29/20 13:44	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 19:00	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 19:00	VIC	L493920
Surrogate: Decachlorobiphenyl	71.9		Limits: 25-125%	1	05/28/20 19:00	VIC	L493920
Surrogate: Tetrachloro-m-xylene	85.6		Limits: 25-125%	1	05/28/20 19:00	VIC	L493920

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/21/2020



Report Number : **20-142-0137**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85510**

Matrix: **Solids**

Sample ID : **ED-DU10-Secondary - Composite**

Sampled: **5/20/2020 0:00**

Analytical Method: 8082A **Prep Batch(es):** L493421 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 19:22	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 19:22	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 19:22	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 19:22	VIC	L493920
Aroclor 1248	11.0	mg/Kg	1.00	100	05/29/20 10:28	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 19:22	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 19:22	VIC	L493920
Surrogate: Decachlorobiphenyl	83.1		Limits: 25-125%	1	05/28/20 19:22	VIC	L493920
Surrogate: Tetrachloro-m-xylene	83.1		Limits: 25-125%	1	05/28/20 19:22	VIC	L493920

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/21/2020



Report Number : **20-142-0137**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85535**

Matrix: **Solids**

Sample ID : **ED-DU10-Tertiary - Composite**

Sampled: **5/20/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L493421** 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 19:44	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 19:44	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 19:44	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 19:44	VIC	L493920
Aroclor 1248	17.5	mg/Kg	1.33	200	05/29/20 14:06	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 19:44	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 19:44	VIC	L493920
Surrogate: Decachlorobiphenyl	73.5		Limits: 25-125%	1	05/28/20 19:44	VIC	L493920
Surrogate: Tetrachloro-m-xylene	79.6		Limits: 25-125%	1	05/28/20 19:44	VIC	L493920

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-142-0137

QC Prep: L493185 **QC Analytical Batch(es):** L493587
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L493185 Matrix: AQU
Associated Lab Samples: 85396

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1221	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1232	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1242	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1248	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1254	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1260	µg/L	< 0.200	0.200	05/27/20 20:03		
Decachlorobiphenyl (S)				05/27/20 20:03	54.0	36-116
Tetrachloro-m-xylene (S)				05/27/20 20:03	73.6	25-123

Laboratory Control Sample & LCSD LCS-L493185 LCSD-L493185

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	4.62	5.03	92.4	101	44-116	8.4	20.0
Aroclor 1260	µg/L	5.00	4.23	4.70	84.6	94.0	43-129	10.5	20.0
Decachlorobiphenyl (S)					63.0	57.0	36-116		
Tetrachloro-m-xylene (S)					71.8	78.0	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-142-0137

QC Prep: L493421 **QC Analytical Batch(es):** L493920
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L493421 Matrix: SOL
 Associated Lab Samples: 85485, 85510, 85535

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1221	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1232	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1242	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1248	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1254	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1260	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Decachlorobiphenyl (S)				05/28/20 17:33	78.0	25-125
Tetrachloro-m-xylene (S)				05/28/20 17:33	76.0	25-125

Laboratory Control Sample LCS-L493421

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.158	94.6	50-125
Aroclor 1260	mg/Kg	0.167	0.171	102	50-125
Decachlorobiphenyl (S)				81.0	25-125
Tetrachloro-m-xylene (S)				82.5	25-125

Matrix Spike & Matrix Spike Duplicate L 85685-MS-L493421 L 85685-MSD-L493421

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.100	0.105	3.22	3.31	3220*	3150*	40-140	2.7	30
Decachlorobiphenyl (S)							85.8	82.6	25-125		
Tetrachloro-m-xylene (S)							87.5	82.6	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-142-0137**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #98

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID: 137347
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0137
 25226
 05-21-2020
 15:55:29

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU10	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1338	ED-DU10-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	1339	ED-DU10-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	1340	ED-DU10-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	1341	ED-DU10-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	1342	ED-DU10-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	1343	ED-DU10-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	1344	ED-DU10-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	1345	ED-DU10-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments		Custody Seals received on:	
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) 	Date Time 5/20/20 17:00	Received by: (SIGNATURE)	Date Time	Cooler(s) Container(s)
Blank/Cooler Temp 1.0°C T98 1.4°C TP		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) 	Date Time 5/21/20	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	

09:15



Kit ID:	137347
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0137
 25226
 05-21-2020
 15:55:29

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	ARCONIC - ELLIOTT DITCH

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1346	ED-DU10-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
5/20/20	1347	ED-DU10-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1348	ED-DU10-40S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1349	ED-DU10-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1350	ED-DU10-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1351	ED-DU10-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1352	ED-DU10-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1353	ED-DU10-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			[Signature]		5/20/20					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
1.4°C T98							[Signature]		5/21/20	
1.0°C (TP)									09:15	



Kit ID:	137347
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0137
 25226
 05-21-2020
 15:55:29

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1354	ED-DU10-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1355	ED-DU10-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1356	ED-DU10-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1357	ED-DU10-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1358	ED-DU10-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1359	ED-DU10-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1400	ED-DU10-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1401	ED-DU10-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Cooler(s) / Container(s)				
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			[Signature]		5/20/20	1700			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
1.4°C TAG 1.0°C TPO			[Signature]				[Signature]	5/21/20	09:15



Kit ID: 137347
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0137
 25226
 05-21-2020
 15 55 29

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU10	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1402	ED-DU10-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1403	ED-DU10-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1404	ED-DU10-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1405	ED-DU10-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1406	ED-DU10-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1407	ED-DU10-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1408	ED-DU10-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1409	ED-DU10-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/Cooler Temp 1.0°C T98 1.4°C TP	Relinquished by: (SIGNATURE) 		Date 5/20/20	Time 1700	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time

Custody Seals

received on:
 Cooler(s) & Container(s)

5/21/20
 09:15



Kit ID:	137347
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordbrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1410	ED-DU10-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1411	ED-DU10-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1412	ED-DU10-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1413	ED-DU10-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1416	ED-DU10-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1417	ED-DU10-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1418	ED-DU10-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1419	ED-DU10-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s) / Container(s)	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
			5/20/20 1700	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
Blank/Cooler Temp				
1.0°C T98				
1.4°C TP				

J. P. [Signature] 5/21/20
09:15



Kit ID:	137347
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0137
 25226
 05-21-2020
 15:55:29

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1420	ED-DU10-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1421	ED-DU10-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1422	ED-DU10-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1423	ED-DU10-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1424	ED-DU10-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1425	ED-DU10-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1426	ED-DU10-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1427	ED-DU10-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			[Signature]		5/20/20 6:15 14700		[Signature]			
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp 1.0°C T98 1.4°C (TP)			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
							[Signature]		5/21/20 09:15	



Kit ID:	137347
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0137
 25226
 05-21-2020
 15:55:29

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1428	ED-DU10-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1429	ED-DU10-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU10-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1431	ED-DU10-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1432	ED-DU10-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1433	ED-DU10-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1434	ED-DU10-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1435	ED-DU10-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:				
(Y/N)	(Y/N)		(Signature)		Cooler(s) / Container(s)				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)		5/20/20	1700			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
1.0°C T98 1.4°C (TP)							(Signature)	5/21/20	09:15



Kit ID: 137347
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0137
 25226
 05-21-2020
 15:55:29

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU10	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1436	ED-DU10-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1437	ED-DU10-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1438	ED-DU10-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1439	ED-DU10-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1440	ED-DU10-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1441	ED-DU10-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1442	ED-DU10-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1443	ED-DU10-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny D'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) <i>[Signature]</i>		Date Time 5/20/20 1700	Received by: (SIGNATURE)		Date Time
Blank/Cooler Temp 1.0°C T98 1.4°C TP			Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)		Date Time
			Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)		Date Time
			Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)		Date Time

Custody Seals
 received on:
 Cooler(s) / Container(s)

[Signature] 5/21/20
 09:15



Kit ID: 137347
Initiated By: Andrea Brownfield
Initiated Date: 5/8/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-142-0137
 25226
 05-21-2020
 15:55:29
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)	Purchase Order Number
Site Name DU10	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/20/20	1444 1445	ED-DU10-22S <i>Grav 5/20/20</i>	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1445 1446	ED-DU10-22T <i>Grav 5/20/20</i>	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1446 1447	ED-DU10-23P <i>Grav 5/20/20</i>	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1447 1448	ED-DU10-23S <i>Grav 5/20/20</i>	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1448	ED-DU10-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1449	ED-DU10-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1450	ED-DU10-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1451	ED-DU10-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: <u>Cooler(s)/Container(s)</u>			
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
				5/20/20 1700				
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
1.0°C TGS 1.4°C TP						5/21/20 09:15		



Kit ID:	137347
Initiated By:	Andrea Brownfield
Initiated Date:	5/8/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-142-0137
 25226
 05-21-2020
 15:55:29

Company Name		Company Number		Client Project Manager/Contact			Purchase Order Number		
Civil & Environmental Consultants, Inc.		25226		Homewood Suite by Hilton Lafayette Attention Jenny Rickford (Room 234)					
Site Name		Project Number		<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment		
DU10		172-367					<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID		Project Manager Phone #		Project Manager Email			Site/Facility ID #		
CEC Knox - Elliott Ditch		865-407-8861		jrickfordobrien@cecinc.com			Arconic - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
5/20/20	1555	ED-DU10-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs	

Custody Seals
 received on:
Cooler(s) / Container(s)

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien					
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
				5/20/20	1700			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
Blank/Cooler Temp 1.0°C T98 1.4°C TP						5/21/20	09:15	

5/29/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-143-0079
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 5/22/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

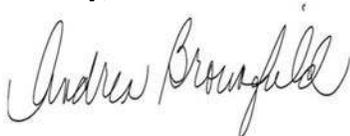
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-143-0079
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
85942	ED-DU09 - Primary - Composite	Solids	05/21/2020	05/22/2020
85969	ED-DU09 - Secondary - Composite	Solids	05/21/2020	05/22/2020
85996	ED-DU09 - Tertiary - Composite	Solids	05/21/2020	05/22/2020
86023	ED-DU09 - EB	Aqueous	05/21/2020 13:55	05/22/2020

Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-143-0079
Date: 5/29/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 85969 (ED-DU09 - Secondary - Composite)

Analyte: Aroclor 1248

QC Batch No: L493920/L493421

Analyte was detected in both the primary and confirmatory analyses, with a relative percent difference (RPD) of greater than 40% between the two results. These results are flagged Q and the lower of the two values is reported. Analytes with RPD values greater than 100% are reported as non-detect.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/22/2020



Report Number : **20-143-0079**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85942**

Matrix: **Solids**

Sample ID : **ED-DU09 - Primary - Composite**

Sampled: **5/21/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L493421** 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 21:33	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 21:33	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 21:33	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 21:33	VIC	L493920
Aroclor 1248	2.74	mg/Kg	1.00	50	05/29/20 12:39	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 21:33	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 21:33	VIC	L493920
Surrogate: Decachlorobiphenyl	61.1		Limits: 25-125%	1	05/28/20 21:33	VIC	L493920
Surrogate: Tetrachloro-m-xylene	79.5		Limits: 25-125%	1	05/28/20 21:33	VIC	L493920

**Qualifiers/
Definitions**

DF
Q

Dilution Factor
RPD >40% dual column results

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/22/2020



Report Number : **20-143-0079**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **85996**

Matrix: **Solids**

Sample ID : **ED-DU09 - Tertiary - Composite**

Sampled: **5/21/2020 0:00**

Analytical Method: 8082A **Prep Batch(es):** **L493421** 05/27/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	05/28/20 22:16	VIC	L493920
Aroclor 1221	<1.00	mg/Kg	1.00	1	05/28/20 22:16	VIC	L493920
Aroclor 1232	<1.00	mg/Kg	1.00	1	05/28/20 22:16	VIC	L493920
Aroclor 1242	<1.00	mg/Kg	1.00	1	05/28/20 22:16	VIC	L493920
Aroclor 1248	1.60	mg/Kg	1.00	10	05/29/20 13:22	VIC	L493920
Aroclor 1254	<1.00	mg/Kg	1.00	1	05/28/20 22:16	VIC	L493920
Aroclor 1260	<1.00	mg/Kg	1.00	1	05/28/20 22:16	VIC	L493920
Surrogate: Decachlorobiphenyl	70.1		Limits: 25-125%	1	05/28/20 22:16	VIC	L493920
Surrogate: Tetrachloro-m-xylene	82.0		Limits: 25-125%	1	05/28/20 22:16	VIC	L493920

**Qualifiers/
Definitions**

DF Dilution Factor
Q RPD >40% dual column results
MQL Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 05/29/2020
Received : 05/22/2020



Report Number : **20-143-0079**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **86023**

Matrix: **Aqueous**

Sample ID : **ED-DU09 - EB**

Sampled: **5/21/2020 13:55**

Analytical Method: 8082A

Prep Batch(es): **L493185** 05/26/20 13:40

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	05/27/20 16:18	VIC	L493587
Aroclor 1221	<0.50	µg/L	0.50	1	05/27/20 16:18	VIC	L493587
Aroclor 1232	<0.50	µg/L	0.50	1	05/27/20 16:18	VIC	L493587
Aroclor 1242	<0.50	µg/L	0.50	1	05/27/20 16:18	VIC	L493587
Aroclor 1248	<0.50	µg/L	0.50	1	05/27/20 16:18	VIC	L493587
Aroclor 1254	<0.50	µg/L	0.50	1	05/27/20 16:18	VIC	L493587
Aroclor 1260	<0.50	µg/L	0.50	1	05/27/20 16:18	VIC	L493587
Surrogate: Decachlorobiphenyl	53.9		Limits: 36-116%	1	05/27/20 16:18	VIC	L493587
Surrogate: Tetrachloro-m-xylene	81.9		Limits: 25-123%	1	05/27/20 16:18	VIC	L493587

**Qualifiers/
Definitions**

DF Dilution Factor
Q RPD >40% dual column results

MQL Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-143-0079

QC Prep: L493185 **QC Analytical Batch(es):** L493587
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L493185 Matrix: AQU
Associated Lab Samples: 86023

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1221	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1232	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1242	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1248	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1254	µg/L	< 0.200	0.200	05/27/20 20:03		
Aroclor 1260	µg/L	< 0.200	0.200	05/27/20 20:03		
Decachlorobiphenyl (S)				05/27/20 20:03	54.0	36-116
Tetrachloro-m-xylene (S)				05/27/20 20:03	73.6	25-123

Laboratory Control Sample & LCSD LCS-L493185 LCSD-L493185

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	4.62	5.03	92.4	101	44-116	8.4	20.0
Aroclor 1260	µg/L	5.00	4.23	4.70	84.6	94.0	43-129	10.5	20.0
Decachlorobiphenyl (S)					63.0	57.0	36-116		
Tetrachloro-m-xylene (S)					71.8	78.0	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-143-0079

QC Prep: L493421 **QC Analytical Batch(es):** L493920
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L493421 Matrix: SOL
 Associated Lab Samples: 85942, 85969, 85996

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1221	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1232	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1242	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1248	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1254	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Aroclor 1260	mg/Kg	<0.0066	0.0066	05/28/20 17:33		
Decachlorobiphenyl (S)				05/28/20 17:33	78.0	25-125
Tetrachloro-m-xylene (S)				05/28/20 17:33	76.0	25-125

Laboratory Control Sample LCS-L493421

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.158	94.6	50-125
Aroclor 1260	mg/Kg	0.167	0.171	102	50-125
Decachlorobiphenyl (S)				81.0	25-125
Tetrachloro-m-xylene (S)				82.5	25-125

Matrix Spike & Matrix Spike Duplicate L 85685-MS-L493421 L 85685-MSD-L493421

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.100	0.105	3.22	3.31	3220*	3150*	40-140	2.7	30
Decachlorobiphenyl (S)							85.8	82.6	25-125		
Tetrachloro-m-xylene (S)							87.5	82.6	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-143-0079**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



CHAIN-OF-CUSTODY

Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-143-0079
 25226
 05-22-2020
 15:17:25

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Company Street Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.
Site Name	Project Number	Method of Shipment
DU09	172-367	<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com
		Site/Facility ID #
		Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1208	ED-DU09-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1209	ED-DU09-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1210	ED-DU09-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1211	ED-DU09-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1212	ED-DU09-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1213	ED-DU09-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1214	ED-DU09-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1215	ED-DU09-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien					received on:	
<input checked="" type="radio"/> Y/N	<input checked="" type="radio"/> Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
				5/21/20	1600				
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
							5/22/20	1015	

Blank/ Cooler Temp
 0.6°C TP
 0.8°C TP



CHAIN-OF-CUSTODY

Kit ID: 137355
Initiated By: Andrea Brownfield
Initiated Date: 5/11/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.



20-143-0079
 25226
 05-22-2020
 15:17:25
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1216	ED-DU09-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1217	ED-DU09-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1218	ED-DU09-04S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1219	ED-DU09-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1220	ED-DU09-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1221	ED-DU090-5S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1222	ED-DU09-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1223	ED-DU09-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments				Custody Seals received on: Cooler(s) / Container(s)	
Ice Y/N	Custody Seals Y/N TP	Lab Comments	Relinquished by: (SIGNATURE) 	Date Time 5/21/2020 1600	Received by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time 5/22/20 1015
Blank/Cooler Temp 0.6°C T70 0.8°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) 	Date Time	Received by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time



Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-143-0079
 25226
 05-22-2020
 15:17:25
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1224	ED-DU09-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1225	ED-DU09-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1226	ED-DU09-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1227	ED-DU09-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1228	ED-DU09-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1229	ED-DU09-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1230	ED-DU09-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1231	ED-DU09-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien	Custody Seals received on:			
Y/N	Y/N TP		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	Cooler(s)/Container(s)
				5/21/20 1600			
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
Blank/Cooler Temp	0.400.8K TP T70						
						5/22/20 1015	



Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-143-0079
 25226
 05-22-2020
 15:17:25

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1232	ED-DU09-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1233	ED-DU09-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1234	ED-DU09-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1235	ED-DU09-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1236	ED-DU09-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1237	ED-DU09-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1238	ED-DU09-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1239	ED-DU09-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Y/N	Y/N	TP	Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			[Signature]		5/21/20 1600		[Signature]			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
T 70 TP 0.6°C, 0.8°C			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			[Signature]				[Signature]		5/22/20 1015	



CHAIN-OF-CUSTODY

Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-143-0079
 25226
 05-22-2020
 15:17:25
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order #
Site Name DU09	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1246	ED-DU09-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1241	ED-DU09-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1242	ED-DU09-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1243	ED-DU09-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1244	ED-DU09-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1245	ED-DU09-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1246	ED-DU09-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1247	ED-DU09-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice Y/N	Custody Seals Y/N TP	Lab Comments	Relinquished by: (SIGNATURE) 		Date 5/21/20	Time 1600	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp TP T70 0.4°C, 0.8°C			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE) 		Date 5/22/20	Time 1015

Custody Seals
 received on:
 Cooler(s)/ Container(s)



CHAIN-OF-CUSTODY

Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-143-0079
 25226
 05-22-2020
 15:17:25

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1248	ED-DU09-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1249	ED-DU09-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1250	ED-DU09-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1251	ED-DU09-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1252	ED-DU09-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1253	ED-DU09-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1254	ED-DU09-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1255	ED-DU09-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s) / Container(s)			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			<input checked="" type="checkbox"/>	5/21/20	1600			
			<input checked="" type="checkbox"/>					
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
730 TP 0.6°C, 0.8°C							5/22/20	1015



CHAIN-OF-CUSTODY

Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-143-0079
 25226
 05-22-2020
 15:17:25
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1254	ED-DU09-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1257	ED-DU09-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU09-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1259	ED-DU09-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU09-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1301	ED-DU09-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1302	ED-DU09-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1303	ED-DU09-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien					received on: Cooler(s) Container(s)	
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
			<i>[Signature]</i>	5/21/20	1050				
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
						<i>[Signature]</i>	5/22/20	1015	
Blank/Cooler Temp									
T=70 °F 0.6°C, 0.8°C									



CHAIN-OF-CUSTODY

Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-143-0079
 25226
 05-22-2020
 15:17:25

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project manager/ contact Civil & Environmental Consultants, Inc.	
Site Name DU09	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1304	ED-DU09-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU09-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1306	ED-DU09-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1307	ED-DU09-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1308	ED-DU09-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU09-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU09-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1311	ED-DU09-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice Y/N	Custody Seals Y/N TP	Lab Comments Blank/Cooler Temp 0.8°C TP 0.6°C T70	Relinquished by: (SIGNATURE) 		Date 5/21/20	Time 1600	Received by: (SIGNATURE) 		Date 5/22/20	Time 1015
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time



Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-143-0079
 25226
 05-22-2020
 15:17:25
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order #
Site Name DU09	Project Number 172-307	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Aromatic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1312	ED-DU09-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1313	ED-DU09-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1314	ED-DU09-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1315	ED-DU09-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1316	ED-DU09-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1317	ED-DU09-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU09-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1319	ED-DU09-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments Custody Seals received on: Cooler(s) Container(s)	
Ice Y/N	Custody Seals Y/N TP	Relinquished by: (SIGNATURE) <i>[Signature]</i>	Date Time 5/21/20 6:00	Received by: (SIGNATURE) Date Time
Blank/Cooler Temp 0.6°C TP DISPECTED		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) <i>[Signature]</i> 5/22/20 10:15



Kit ID:	137355
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-143-0079
 25226
 05-22-2020
 15:17:25

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/21/20	1320	ED-DU09-25P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU09-25S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1322	ED-DU09-25T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1323	ED-DU09-26P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1324	ED-DU09-26S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	125	ED-DU09-26T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1355	ED-DU09-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Cooler(s) / Container(s)			
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
				5/21/20 1600				
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
0.6 °C TP 0.8 °C TP						5/22/20 1015		

6/3/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-147-0077
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 5/23/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

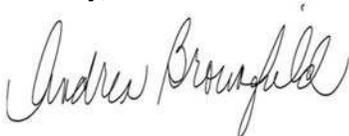
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-147-0077
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
86670	ED-DU08 - Primary - Composite	Solids	05/22/2020 13:09	05/23/2020
86697	ED-DU08 - Secondary - Composite	Solids	05/22/2020 13:21	05/23/2020
86724	ED-DU08 - Tertiary - Composite	Solids	05/22/2020 13:18	05/23/2020
86751	ED-DU08 - EB	Aqueous	05/22/2020 14:45	05/23/2020

Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-147-0077
Date: 6/3/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

QC Batch No: L494401

MS/MSD failures biased high for Aroclor 1016 are due to co-elutions with Aroclor 1248 which is present in the parent sample.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/03/2020
Received : 05/23/2020



Report Number : **20-147-0077**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **86670**

Matrix: **Solids**

Sample ID : **ED-DU08 - Primary - Composite**

Sampled: **5/22/2020 13:09**

Analytical Method: 8082A **Prep Batch(es):** **L494014** 06/01/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	06/02/20 15:12	VIC	L494401
Aroclor 1221	<1.00	mg/Kg	1.00	1	06/02/20 15:12	VIC	L494401
Aroclor 1232	<1.00	mg/Kg	1.00	1	06/02/20 15:12	VIC	L494401
Aroclor 1242	<1.00	mg/Kg	1.00	1	06/02/20 15:12	VIC	L494401
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/02/20 18:46	VIC	L494401
Aroclor 1254	<1.00	mg/Kg	1.00	1	06/02/20 15:12	VIC	L494401
Aroclor 1260	<1.00	mg/Kg	1.00	1	06/02/20 15:12	VIC	L494401
Surrogate: Decachlorobiphenyl	90.6		Limits: 25-125%	1	06/02/20 15:12	VIC	L494401
Surrogate: Tetrachloro-m-xylene	72.4		Limits: 25-125%	1	06/02/20 15:12	VIC	L494401

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/03/2020
Received : 05/23/2020



Report Number : **20-147-0077**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **86697**

Matrix: **Solids**

Sample ID : **ED-DU08 - Secondary - Composite**

Sampled: **5/22/2020 13:21**

Analytical Method: 8082A **Prep Batch(es):** L494014 06/01/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	06/02/20 15:33	VIC	L494401
Aroclor 1221	<1.00	mg/Kg	1.00	1	06/02/20 15:33	VIC	L494401
Aroclor 1232	<1.00	mg/Kg	1.00	1	06/02/20 15:33	VIC	L494401
Aroclor 1242	<1.00	mg/Kg	1.00	1	06/02/20 15:33	VIC	L494401
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/02/20 19:08	VIC	L494401
Aroclor 1254	<1.00	mg/Kg	1.00	1	06/02/20 15:33	VIC	L494401
Aroclor 1260	<1.00	mg/Kg	1.00	1	06/02/20 15:33	VIC	L494401
Surrogate: Decachlorobiphenyl	102		Limits: 25-125%	1	06/02/20 15:33	VIC	L494401
Surrogate: Tetrachloro-m-xylene	73.0		Limits: 25-125%	1	06/02/20 15:33	VIC	L494401

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/03/2020
Received : 05/23/2020



Report Number : **20-147-0077**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **86724**

Matrix: **Solids**

Sample ID : **ED-DU08 - Tertiary - Composite**

Sampled: **5/22/2020 13:18**

Analytical Method: 8082A **Prep Batch(es):** L494014 06/01/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	06/02/20 16:39	VIC	L494401
Aroclor 1221	<1.00	mg/Kg	1.00	1	06/02/20 16:39	VIC	L494401
Aroclor 1232	<1.00	mg/Kg	1.00	1	06/02/20 16:39	VIC	L494401
Aroclor 1242	<1.00	mg/Kg	1.00	1	06/02/20 16:39	VIC	L494401
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/02/20 20:14	VIC	L494401
Aroclor 1254	<1.00	mg/Kg	1.00	1	06/02/20 16:39	VIC	L494401
Aroclor 1260	<1.00	mg/Kg	1.00	1	06/02/20 16:39	VIC	L494401
Surrogate: Decachlorobiphenyl	84.0		Limits: 25-125%	1	06/02/20 16:39	VIC	L494401
Surrogate: Tetrachloro-m-xylene	68.5		Limits: 25-125%	1	06/02/20 16:39	VIC	L494401

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/03/2020
Received : 05/23/2020



Report Number : **20-147-0077**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **86751**

Matrix: **Aqueous**

Sample ID : **ED-DU08 - EB**

Sampled: **5/22/2020 14:45**

Analytical Method: 8082A

Prep Batch(es): **L493659** 05/28/20 15:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	05/28/20 23:00	VIC	L493848
Aroclor 1221	<0.50	µg/L	0.50	1	05/28/20 23:00	VIC	L493848
Aroclor 1232	<0.50	µg/L	0.50	1	05/28/20 23:00	VIC	L493848
Aroclor 1242	<0.50	µg/L	0.50	1	05/28/20 23:00	VIC	L493848
Aroclor 1248	<0.50	µg/L	0.50	1	05/28/20 23:00	VIC	L493848
Aroclor 1254	<0.50	µg/L	0.50	1	05/28/20 23:00	VIC	L493848
Aroclor 1260	<0.50	µg/L	0.50	1	05/28/20 23:00	VIC	L493848
Surrogate: Decachlorobiphenyl	38.6		Limits: 36-116%	1	05/28/20 23:00	VIC	L493848
Surrogate: Tetrachloro-m-xylene	79.8		Limits: 25-123%	1	05/28/20 23:00	VIC	L493848

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-147-0077

QC Prep: L493659 **QC Analytical Batch(es):** L493848
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L493659 Matrix: AQU
Associated Lab Samples: 86751

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1221	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1232	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1242	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1248	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1254	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1260	µg/L	< 0.200	0.200	05/28/20 15:22		
Decachlorobiphenyl (S)				05/28/20 15:22	87.5	36-116
Tetrachloro-m-xylene (S)				05/28/20 15:22	76.1	25-123

Laboratory Control Sample & LCSD LCS-L493659 LCSD-L493659

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.09	5.04	102	101	44-116	0.9	20.0
Aroclor 1260	µg/L	5.00	5.95	5.53	119	111	43-129	7.3	20.0
Decachlorobiphenyl (S)					93.1	73.8	36-116		
Tetrachloro-m-xylene (S)					79.5	76.6	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-147-0077

QC Prep: L494014 **QC Analytical Batch(es):** L494401
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L494014 Matrix: SOL
 Associated Lab Samples: 86670, 86697, 86724

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Decachlorobiphenyl (S)				06/02/20 14:06	89.5	25-125
Tetrachloro-m-xylene (S)				06/02/20 14:06	68.0	25-125

Laboratory Control Sample & LCSD LCS-L494014 LCSD-L494014

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	0.167	0.154	0.162	92.2	97.0	50-125	5.0	20
Aroclor 1260	mg/Kg	0.167	0.168	0.174	101	104	50-125	3.5	20
Decachlorobiphenyl (S)					93.5	95.5	25-125		
Tetrachloro-m-xylene (S)					68.5	76.5	25-125		

Matrix Spike & Matrix Spike Duplicate L 86697-MS-L494014 L 86697-MSD-L494014

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.0986	0.0984	0.842	0.856	854*	870*	40-140	1.6	30
Aroclor 1260	mg/Kg	<0.0066	0.0986	0.0984	0.103	0.104	104	106	40-140	0.9	30
Decachlorobiphenyl (S)							93.2	93.2	25-125		
Tetrachloro-m-xylene (S)							76.8	78.8	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-147-0077**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID: #56

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-147-0077
 25226
 05-26-2020
 15:37:31

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU08	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1309	ED-DU08-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien						received on: Coolers/Containers	
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		5/22/20	1630				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp							Received by: (SIGNATURE)			
1.4°C T56							[Signature]		5/23/20	
1.9°C TP										07:26



Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-147-0077
 25226
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Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU08	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1318	ED-DU08-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-04S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien	Custody Seals received on: Coolers / Containers				
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	5/22/20	1630			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.4°C TSL								
1.9°C TP								

Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-147-0077
 25226
 05-26-2020
 15:37:31
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU08	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcanic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1321	ED-DU08-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1308	ED-DU08-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	Custody Seals received on: Coolers/Containers	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Jenny O'Brien	5/22/20 1630	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)

Blank/Cooler Temp
 1.4°C T56
 1.9°C TP

J. O'Brien 5/23/20 07:26



Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-147-0077
 25226
 05-26-2020
 15:37:31

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU08	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arctic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1309	ED-DU08-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1321	ED-DU08-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien	Custody Seals received on: Coolers / Containers				
Y/N	Y/N TP		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	5/22/20	1630			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp								
1.4°C TSL6								
1.9°C TP								

[Signature] 5/23/20
 07:26



Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-147-0077
 25226
 05-26-2020
 15:37:31

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU08	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1318	ED-DU08-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Coolers Containers				
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		5/22/20	1630			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
1.4°C T56									
1.9°C TP									

[Signature] 5/22/20
 07:26



Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-147-0077
 25226
 05-26-2020
 15:37:31

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU08	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1321	ED-DU08-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Coolers Containers					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		5/22/20	1630				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
1.4°C T56 1.9°C TP							[Signature]		5/23/20	07:26



CHAIN-OF-CUSTODY

Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-147-0077
 25226
 05-26-2020
 15:37:31
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU08	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID #

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1309	ED-DU08-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1319	ED-DU08-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1319	ED-DU08-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1321	ED-DU08-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments Custody Seals received on: <u>Coolers</u> Containers			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 5/22/20 1630	Received by: (SIGNATURE)	Date Time		
Blank/Cooler Temp 1.4°C T50 1.9°C T19			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		

J. O'Brien 5/23/20 07:26



Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-147-0077
 25226
 05-26-2020
 15:37:31
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU08	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1318	ED-DU08-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments Custody Seals received on: Coolers/ Containers			
Ice	Custody Seals	Lab Comments	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Y/N	Y/N		Jenny O'Brien	5/22/20	10:30			
Blank/Cooler Temp 1.4°C TSC 1.9°C (TD)			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
						J. O'Brien	5/23/20	07:26



Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-147-0077
 25226
 05-26-2020
 15:37:31
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU08	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1321	ED-DU08-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1318	ED-DU08-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments received on: Coolers / Containers			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 5/22/20 1630	Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp 1.4°C TSC 1.9°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	

J. Phlips
 5/23/20
 07:26



CHAIN-OF-CUSTODY

Kit ID:	137360
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-147-0077
 25226
 05-26-2020
 15:37:31
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU08	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/22/20	1309	ED-DU08-25P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-25S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-25T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1309	ED-DU08-26P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1321	ED-DU08-26S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1318	ED-DU08-26T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1445	ED-DU08-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments Custody Seals received on: Coolers Containers			
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/Cooler Temp 1.4°C TSC 1.9°C TP	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 5/22/20 1630	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		



6/3/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-148-0109
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 5/27/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-148-0109
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
87275	ED-DU07 - Primary - Composite	Solids	05/26/2020 08:15	05/27/2020
87296	ED-DU07 - Secondary - Composite	Solids	05/26/2020 08:44	05/27/2020
87317	ED-DU07 - Tertiary - Composite	Solids	05/26/2020 09:18	05/27/2020
87353	ED-DU07 - EB	Aqueous	05/26/2020 11:13	05/27/2020

Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-148-0109
Date: 6/3/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

QC Batch No: L494401

MS/MSD failures biased high for Aroclor 1016 are due to co-elutions with Aroclor 1248 which is present in the parent sample.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/03/2020
Received : 05/27/2020



Report Number : **20-148-0109**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **87275**

Matrix: **Solids**

Sample ID : **ED-DU07 - Primary - Composite**

Sampled: **5/26/2020 8:15**

Analytical Method: 8082A **Prep Batch(es):** L494014 06/01/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	100	06/02/20 20:35	VIC	L494401
Aroclor 1221	<1.00	mg/Kg	1.00	100	06/02/20 20:35	VIC	L494401
Aroclor 1232	<1.00	mg/Kg	1.00	100	06/02/20 20:35	VIC	L494401
Aroclor 1242	<1.00	mg/Kg	1.00	100	06/02/20 20:35	VIC	L494401
Aroclor 1248	10.5	mg/Kg	1.00	100	06/02/20 20:35	VIC	L494401
Aroclor 1254	<1.00	mg/Kg	1.00	100	06/02/20 20:35	VIC	L494401
Aroclor 1260	<1.00	mg/Kg	1.00	100	06/02/20 20:35	VIC	L494401
Surrogate: Decachlorobiphenyl	26.7		Limits: 25-125%	100	06/02/20 20:35	VIC	L494401
Surrogate: Tetrachloro-m-xylene	55.0		Limits: 25-125%	100	06/02/20 20:35	VIC	L494401

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/03/2020
Received : 05/27/2020



Report Number : **20-148-0109**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **87296**

Matrix: **Solids**

Sample ID : **ED-DU07 - Secondary - Composite**

Sampled: **5/26/2020 8:44**

Analytical Method: 8082A

Prep Batch(es): **L494014** 06/01/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	06/02/20 18:02	VIC	L494401
Aroclor 1221	<1.00	mg/Kg	1.00	1	06/02/20 18:02	VIC	L494401
Aroclor 1232	<1.00	mg/Kg	1.00	1	06/02/20 18:02	VIC	L494401
Aroclor 1242	<1.00	mg/Kg	1.00	1	06/02/20 18:02	VIC	L494401
Aroclor 1248	23.1	mg/Kg	1.33	200	06/02/20 20:57	VIC	L494401
Aroclor 1254	<1.00	mg/Kg	1.00	1	06/02/20 18:02	VIC	L494401
Aroclor 1260	<1.00	mg/Kg	1.00	1	06/02/20 18:02	VIC	L494401
Surrogate: Decachlorobiphenyl	70.7		Limits: 25-125%	1	06/02/20 18:02	VIC	L494401
Surrogate: Tetrachloro-m-xylene	69.4		Limits: 25-125%	1	06/02/20 18:02	VIC	L494401

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/03/2020
Received : 05/27/2020



Report Number : **20-148-0109**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **87317**

Matrix: **Solids**

Sample ID : **ED-DU07 - Tertiary - Composite**

Sampled: **5/26/2020 9:18**

Analytical Method: 8082A **Prep Batch(es):** **L494014** 06/01/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	06/02/20 18:24	VIC	L494401
Aroclor 1221	<1.00	mg/Kg	1.00	1	06/02/20 18:24	VIC	L494401
Aroclor 1232	<1.00	mg/Kg	1.00	1	06/02/20 18:24	VIC	L494401
Aroclor 1242	<1.00	mg/Kg	1.00	1	06/02/20 18:24	VIC	L494401
Aroclor 1248	27.7	mg/Kg	3.34	500	06/02/20 21:19	VIC	L494401
Aroclor 1254	<1.00	mg/Kg	1.00	1	06/02/20 18:24	VIC	L494401
Aroclor 1260	<1.00	mg/Kg	1.00	1	06/02/20 18:24	VIC	L494401
Surrogate: Decachlorobiphenyl	69.6		Limits: 25-125%	1	06/02/20 18:24	VIC	L494401
Surrogate: Tetrachloro-m-xylene	63.4		Limits: 25-125%	1	06/02/20 18:24	VIC	L494401

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/03/2020
Received : 05/27/2020



Andrea R. Brownfield
Project manager

Report Number : **20-148-0109**

REPORT OF ANALYSIS

Lab No : **87353**

Matrix: **Aqueous**

Sample ID : **ED-DU07 - EB**

Sampled: **5/26/2020 11:13**

Analytical Method: 8082A **Prep Batch(es):** L493659 05/28/20 15:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	05/28/20 23:22	VIC	L493848
Aroclor 1221	<0.50	µg/L	0.50	1	05/28/20 23:22	VIC	L493848
Aroclor 1232	<0.50	µg/L	0.50	1	05/28/20 23:22	VIC	L493848
Aroclor 1242	<0.50	µg/L	0.50	1	05/28/20 23:22	VIC	L493848
Aroclor 1248	<0.50	µg/L	0.50	1	05/28/20 23:22	VIC	L493848
Aroclor 1254	<0.50	µg/L	0.50	1	05/28/20 23:22	VIC	L493848
Aroclor 1260	<0.50	µg/L	0.50	1	05/28/20 23:22	VIC	L493848
Surrogate: Decachlorobiphenyl	63.3		Limits: 36-116%	1	05/28/20 23:22	VIC	L493848
Surrogate: Tetrachloro-m-xylene	82.2		Limits: 25-123%	1	05/28/20 23:22	VIC	L493848

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-148-0109

QC Prep: L493659 **QC Analytical Batch(es):** L493848
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L493659 Matrix: AQU
Associated Lab Samples: 87353

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1221	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1232	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1242	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1248	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1254	µg/L	< 0.200	0.200	05/28/20 15:22		
Aroclor 1260	µg/L	< 0.200	0.200	05/28/20 15:22		
Decachlorobiphenyl (S)				05/28/20 15:22	87.5	36-116
Tetrachloro-m-xylene (S)				05/28/20 15:22	76.1	25-123

Laboratory Control Sample & LCSD LCS-L493659 LCSD-L493659

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.09	5.04	102	101	44-116	0.9	20.0
Aroclor 1260	µg/L	5.00	5.95	5.53	119	111	43-129	7.3	20.0
Decachlorobiphenyl (S)					93.1	73.8	36-116		
Tetrachloro-m-xylene (S)					79.5	76.6	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-148-0109

QC Prep: L494014 **QC Analytical Batch(es):** L494401
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L494014 Matrix: SOL
Associated Lab Samples: 87275, 87296, 87317

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/02/20 14:06		
Decachlorobiphenyl (S)				06/02/20 14:06	89.5	25-125
Tetrachloro-m-xylene (S)				06/02/20 14:06	68.0	25-125

Laboratory Control Sample & LCSD LCS-L494014 LCSD-L494014

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	0.167	0.154	0.162	92.2	97.0	50-125	5.0	20
Aroclor 1260	mg/Kg	0.167	0.168	0.174	101	104	50-125	3.5	20
Decachlorobiphenyl (S)					93.5	95.5	25-125		
Tetrachloro-m-xylene (S)					68.5	76.5	25-125		

Matrix Spike & Matrix Spike Duplicate L 86697-MS-L494014 L 86697-MSD-L494014

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.0986	0.0984	0.842	0.856	854*	870*	40-140	1.6	30
Aroclor 1260	mg/Kg	<0.0066	0.0986	0.0984	0.103	0.104	104	106	40-140	0.9	30
Decachlorobiphenyl (S)							93.2	93.2	25-125		
Tetrachloro-m-xylene (S)							76.8	78.8	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-148-0109**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID: #56

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



CHAIN-OF-CUSTODY

Kit ID:	137365
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-148-0109
 25226
 05-27-2020
 16:34:25

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
5/26	0815	ED-DU07-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs	
↓	0844	ED-DU07-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs	
	0918	ED-DU07-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs	
	0815	ED-DU07-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs	
	0844	ED-DU07-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs	
	0918	ED-DU07-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs	
	0815	ED-DU07-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs	
	↓	0844	ED-DU07-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s) / Container(s)					
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time		
			Y/N		TP		Jenny O'Brien		5/26 1330	
			Blank/Cooler Temp							
1.0°C	TP									
1.1°C	TP									
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time		
					J. P. [Signature]		5/27/20 08:00			



CHAIN-OF-CUSTODY

Kit ID:	137365
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-148-0109
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 05-27-2020
 16:34:25
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/26	0918	ED-DU07-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0815	ED-DU07-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien						received on:	
A/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		5/26	1330				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)				[Signature]		5/27/20	08:00
Blank/Cooler Temp										
1.0°C T56										
1.1°C (TP)										



CHAIN-OF-CUSTODY

Kit ID:	137365
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-148-0109
 25226
 05-27-2020
 16:34:25

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/26	0844	ED-DU07-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Cooler(s) Container(s)			
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Jenny O'Brien	5/26 1330				
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
1.0°C T56								
1.1°C TP								

[Signature] 5/27/20
08:00



CHAIN-OF-CUSTODY

Kit ID:	137365
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-148-0109
 25226
 05-27-2020
 16:34:25

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/26	0815	ED-DU07-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seal received on: Cooler(s) / Container(s)			
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien	5/26 1330				
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
1.0°C T56 1.1°C TP					J. O'Brien		5/27/20 08:00	

Kit ID:	137365
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-148-0109
 25226
 05-27-2020
 16:34:25

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU07	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/26	0818	ED-DU07-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/Cooler Temp 1.0°C TSP 1.1°C TP	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
							Custody Seals received on: Cooler(s) / Container(s)			
							5/27/20		08:00	



Kit ID:	137365
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-148-0109
 25226
 05-27-2020
 16:34:25

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/26	0844	ED-DU07-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Q/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		5/26 1330					
			Relinquished by: (SIGNATURE)							
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
1.0°C TSC 1.1°C TP							A. P. Phillips		5/27/20 0800	



Kit ID: 137365
Initiated By: Andrea Brownfield
Initiated Date: 5/11/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-148-0109
 25226
 05-27-2020
 16:34:25

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU07	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/26	0815	ED-DU07-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments received on: Cooler(s) Container(s)			
Ice O/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 5/26 1330	Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp 1.0°C TSC 1.1°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	



Kit ID:	137365
Initiated By:	Andrea Brownfield
Initiated Date:	5/11/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-148-0109
 25226
 05-27-2020
 16:34:25

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07			
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
5/26	0918	ED-DU07-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0815	ED-DU07-20P	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	0844	ED-DU07-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0918	ED-DU07-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1113	ED-DU07-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs

Custody 3
 received on:

Cooler(s) Container(s)

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien					
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	5/26	1300			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.0°C TSC								
1.1°C TP								

[Signature] 5/27/20
 08:00

6/11/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-156-0107
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/4/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

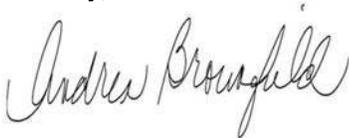
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-156-0107
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
89882	ED-DU06 - Primary - Composite	Solids	06/03/2020 07:25	06/04/2020
89907	ED-DU06 - Secondary - Composite	Solids	06/03/2020 07:42	06/04/2020
89932	ED-DU06 - Tertiary - Composite	Solids	06/03/2020 07:39	06/04/2020
89957	ED-DU06 - EB	Aqueous	06/03/2020	06/04/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/11/2020
Received : 06/04/2020



Report Number : **20-156-0107**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **89882**

Matrix: **Solids**

Sample ID : **ED-DU06 - Primary - Composite**

Sampled: **6/3/2020 7:25**

Analytical Method: 8082A **Prep Batch(es):** L495353 06/09/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	06/10/20 14:10	VIC	L495681
Aroclor 1221	<1.00	mg/Kg	1.00	1	06/10/20 14:10	VIC	L495681
Aroclor 1232	<1.00	mg/Kg	1.00	1	06/10/20 14:10	VIC	L495681
Aroclor 1242	<1.00	mg/Kg	1.00	1	06/10/20 14:10	VIC	L495681
Aroclor 1248	1.15	mg/Kg	1.00	10	06/10/20 15:15	VIC	L495681
Aroclor 1254	<1.00	mg/Kg	1.00	1	06/10/20 14:10	VIC	L495681
Aroclor 1260	<1.00	mg/Kg	1.00	1	06/10/20 14:10	VIC	L495681
Surrogate: Decachlorobiphenyl	73.7		Limits: 25-125%	1	06/10/20 14:10	VIC	L495681
Surrogate: Tetrachloro-m-xylene	84.1		Limits: 25-125%	1	06/10/20 14:10	VIC	L495681

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/11/2020
Received : 06/04/2020



Report Number : **20-156-0107**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **89907**

Matrix: **Solids**

Sample ID : **ED-DU06 - Secondary - Composite**

Sampled: **6/3/2020 7:42**

Analytical Method: 8082A

Prep Batch(es): L495353 06/09/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	06/10/20 14:32	VIC	L495681
Aroclor 1221	<1.00	mg/Kg	1.00	1	06/10/20 14:32	VIC	L495681
Aroclor 1232	<1.00	mg/Kg	1.00	1	06/10/20 14:32	VIC	L495681
Aroclor 1242	<1.00	mg/Kg	1.00	1	06/10/20 14:32	VIC	L495681
Aroclor 1248	1.74	mg/Kg	1.00	10	06/10/20 15:37	VIC	L495681
Aroclor 1254	<1.00	mg/Kg	1.00	1	06/10/20 14:32	VIC	L495681
Aroclor 1260	<1.00	mg/Kg	1.00	1	06/10/20 14:32	VIC	L495681
Surrogate: Decachlorobiphenyl	70.3		Limits: 25-125%	1	06/10/20 14:32	VIC	L495681
Surrogate: Tetrachloro-m-xylene	74.1		Limits: 25-125%	1	06/10/20 14:32	VIC	L495681

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/11/2020
Received : 06/04/2020



Report Number : **20-156-0107**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **89932**

Matrix: **Solids**

Sample ID : **ED-DU06 - Tertiary - Composite**

Sampled: **6/3/2020 7:39**

Analytical Method: 8082A

Prep Batch(es): **L495353** 06/09/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	06/10/20 14:54	VIC	L495681
Aroclor 1221	<1.00	mg/Kg	1.00	1	06/10/20 14:54	VIC	L495681
Aroclor 1232	<1.00	mg/Kg	1.00	1	06/10/20 14:54	VIC	L495681
Aroclor 1242	<1.00	mg/Kg	1.00	1	06/10/20 14:54	VIC	L495681
Aroclor 1248	1.11	mg/Kg	1.00	10	06/10/20 15:59	VIC	L495681
Aroclor 1254	<1.00	mg/Kg	1.00	1	06/10/20 14:54	VIC	L495681
Aroclor 1260	<1.00	mg/Kg	1.00	1	06/10/20 14:54	VIC	L495681
Surrogate: Decachlorobiphenyl	95.5		Limits: 25-125%	1	06/10/20 14:54	VIC	L495681
Surrogate: Tetrachloro-m-xylene	85.0		Limits: 25-125%	1	06/10/20 14:54	VIC	L495681

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/11/2020
Received : 06/04/2020



Andrea R. Brownfield
Project manager

Report Number : **20-156-0107**

REPORT OF ANALYSIS

Lab No : **89957**

Matrix: **Aqueous**

Sample ID : **ED-DU06 - EB**

Sampled: **6/3/2020 0:00**

Analytical Method: 8082A **Prep Batch(es):** L495427 06/09/20 11:15

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/09/20 23:36	VIC	L495679
Aroclor 1221	<0.50	µg/L	0.50	1	06/09/20 23:36	VIC	L495679
Aroclor 1232	<0.50	µg/L	0.50	1	06/09/20 23:36	VIC	L495679
Aroclor 1242	<0.50	µg/L	0.50	1	06/09/20 23:36	VIC	L495679
Aroclor 1248	<0.50	µg/L	0.50	1	06/09/20 23:36	VIC	L495679
Aroclor 1254	<0.50	µg/L	0.50	1	06/09/20 23:36	VIC	L495679
Aroclor 1260	<0.50	µg/L	0.50	1	06/09/20 23:36	VIC	L495679
Surrogate: Decachlorobiphenyl	37.3		Limits: 36-116%	1	06/09/20 23:36	VIC	L495679
Surrogate: Tetrachloro-m-xylene	77.5		Limits: 25-123%	1	06/09/20 23:36	VIC	L495679

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-156-0107

QC Prep: L495353 **QC Analytical Batch(es):** L495681
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L495353 Matrix: SOL
Associated Lab Samples: 89882, 89907, 89932

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/10/20 12:09		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/10/20 12:09		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/10/20 12:09		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/10/20 12:09		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/10/20 12:09		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/10/20 12:09		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/10/20 12:09		
Decachlorobiphenyl (S)				06/10/20 12:09	94.5	25-125
Tetrachloro-m-xylene (S)				06/10/20 12:09	82.0	25-125

Laboratory Control Sample LCS-L495353

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.142	85.0	50-125
Aroclor 1260	mg/Kg	0.167	0.127	76.0	50-125
Decachlorobiphenyl (S)				94.0	25-125
Tetrachloro-m-xylene (S)				87.5	25-125

Matrix Spike & Matrix Spike Duplicate L 89882-MS-L495353 L 89882-MSD-L495353

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.109	0.111	1.26	1.19	1160*	1070*	40-140	5.7	30
Aroclor 1260	mg/Kg	<0.0066	0.109	0.111	0.159	0.106	146*	95.4	40-140	40.0*	30
Decachlorobiphenyl (S)							95.3	87.9	25-125		
Tetrachloro-m-xylene (S)							98.5	91.7	25-125		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-156-0107

QC Prep: L495427 **QC Analytical Batch(es):** L495679
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L495427 Matrix: AQU
 Associated Lab Samples: 89957

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1221	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1232	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1242	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1248	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1254	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1260	µg/L	< 0.200	0.200	06/09/20 18:52		
Decachlorobiphenyl (S)				06/09/20 18:52	69.1	36-116
Tetrachloro-m-xylene (S)				06/09/20 18:52	68.1	25-123

Laboratory Control Sample & LCSD LCS-L495427 LCSD-L495427

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.44	4.63	109	92.6	44-116	16.0	20.0
Aroclor 1260	µg/L	5.00	5.55	4.62	111	92.4	43-129	18.2	20.0
Decachlorobiphenyl (S)					54.0	80.1	36-116		
Tetrachloro-m-xylene (S)					77.8	73.6	25-123		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-156-0107**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID: #70

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-156-0107
 25226
 06-04-2020
 14:19:06

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch 02228004

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0725	ED-DU06-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Coolers/Containers			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/3	1100			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.3°C T70 1.0°C TP								

07:50



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-156-0107
 25226
 06-04-2020
 14:19:06
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0739	ED-DU06-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Coolers Containers			
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Jenny O'Brien	6/3 1100				
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
1.3°C T70 1.0°C TP						6/4/20	07:50	



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-156-0107
 25226
 06-04-2020
 14:19:06
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0742	ED-DU06-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0739	ED-DU06-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Coolers Containers			
YN	YN		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/3	1100			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.3°C T70 1.0°C TP							6/4/20	07:50



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-156-0107
 25226
 06-04-2020
 14:19:06
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0715	ED-DU06-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: <u>Coolers</u> Containers				
0/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		6/3	1100			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
1.3°C T70									
1.0°C TP									



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

 20-156-0107
 25226
 06-04-2020
 14:19:06
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
4/3	0739	ED-DU06-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0725	ED-DU06-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals received on: Coolers / Containers	
Ice	Custody Seals	Jenny O'Brien				
(Y/N)	(Y/N)	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time
		Jenny O'Brien	4/3 1100			
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
1.3°C T70						
1.0°C TP						
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	

J. O'Brien 6/4/20
07:50



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-156-0107
 25226
 06-04-2020
 14:19:06
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0742	ED-DU06-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien	Custody Seals received on: Coolers Containers			
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
			Jenny O'Brien	6/3	1100		
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
1.3°C T70 1.0°C TP							



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-156-0107
 25226
 06-04-2020
 14:19:06
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0725	ED-DU06-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Coolers / Containers					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jimmy O'Brien		6/3	1100				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp										
1.3°C T70										
1.0°C TP										

[Signature] 6/4/20
 07:50



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-156-0107
 25226
 06-04-2020
 14:19:06

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcanic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0739	ED-DU06-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Jenny O'Brien	Custody Seals received on: Coolers / Containers				
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/3	1100			
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.3°C T70 1.0°C (TP)							

[Signature] 6/4/20
 07:50

Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-156-0107
 25226
 06-04-2020
 14:19:06
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU06	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0742	ED-DU06-22S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DU06-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0742	ED-DU06-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0739	ED-DU06-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)		Date	Time
Y/N	Y/N				6/3	1100				
Blank/Cooler Temp 1.3°C T70 1.0°C (TP)			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
									6/4/20	07:50



Kit ID:	137366
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name		Company Number		Client Project Manager/Contact		Purchase Order Number		
Civil & Environmental Consultants, Inc.		25226		Civil & Environmental Consultants, Inc.				
Site Name		Project Number		<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed		Method of Shipment		
DU06		172-367				<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID		Project Manager Phone #		Project Manager Email		Site/Facility ID #		
CEC Knox - Elliott Ditch		865-407-8861		jrickfordobrien@cecinc.com		Arconic - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	0855	ED-DU06-EB	Aqueous		2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals
 received on:
Coolers / Containers

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien					
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/3	1100			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.3°C T70								
1.0°C (TP)								

[Signature] 6/4/20
 07:50

6/12/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-157-0035
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/5/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

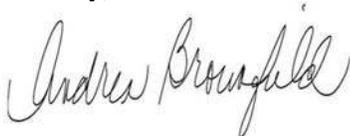
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-157-0035
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
90470	ED-DU05 - Primary - Composite	Solids	06/04/2020 10:36	06/05/2020
90495	ED-DU05 - Secondary - Composite	Solids	06/04/2020 10:45	06/05/2020
90520	ED-DU05 - Tertiary - Composite	Solids	06/04/2020 10:45	06/05/2020
90545	ED-DU05 - EB	Aqueous	06/04/2020 13:45	06/05/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/12/2020
Received : 06/05/2020



Report Number : **20-157-0035**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **90470**

Matrix: **Solids**

Sample ID : **ED-DU05 - Primary - Composite**

Sampled: **6/4/2020 10:36**

Analytical Method: 8082A

Prep Batch(es): **L495760** 06/10/20 17:15

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/11/20 16:33	VIC	L495895
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/11/20 16:33	VIC	L495895
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/11/20 16:33	VIC	L495895
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/11/20 16:33	VIC	L495895
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/11/20 16:33	VIC	L495895
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/11/20 16:33	VIC	L495895
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/11/20 16:33	VIC	L495895
Surrogate: Decachlorobiphenyl	109		Limits: 25-125%	10	06/11/20 16:33	VIC	L495895
Surrogate: Tetrachloro-m-xylene	122		Limits: 25-125%	10	06/11/20 16:33	VIC	L495895

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/12/2020
Received : 06/05/2020



Report Number : **20-157-0035**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **90495**

Matrix: **Solids**

Sample ID : **ED-DU05 - Secondary - Composite**

Sampled: **6/4/2020 10:45**

Analytical Method: 8082A

Prep Batch(es): **L495760** 06/10/20 17:15

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/11/20 16:55	VIC	L495895
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/11/20 16:55	VIC	L495895
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/11/20 16:55	VIC	L495895
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/11/20 16:55	VIC	L495895
Aroclor 1248	3.85	mg/Kg	1.00	100	06/11/20 19:33	VIC	L495895
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/11/20 16:55	VIC	L495895
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/11/20 16:55	VIC	L495895
Surrogate: Decachlorobiphenyl	109		Limits: 25-125%	10	06/11/20 16:55	VIC	L495895
Surrogate: Tetrachloro-m-xylene	112		Limits: 25-125%	10	06/11/20 16:55	VIC	L495895

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/12/2020
Received : 06/05/2020



Report Number : **20-157-0035**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **90520**

Matrix: **Solids**

Sample ID : **ED-DU05 - Tertiary - Composite**

Sampled: **6/4/2020 10:45**

Analytical Method: 8082A

Prep Batch(es): **L495760** 06/10/20 17:15

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/11/20 17:17	VIC	L495895
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/11/20 17:17	VIC	L495895
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/11/20 17:17	VIC	L495895
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/11/20 17:17	VIC	L495895
Aroclor 1248	1.34	mg/Kg	1.00	10	06/11/20 17:17	VIC	L495895
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/11/20 17:17	VIC	L495895
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/11/20 17:17	VIC	L495895
Surrogate: Decachlorobiphenyl	79.7		Limits: 25-125%	10	06/11/20 17:17	VIC	L495895
Surrogate: Tetrachloro-m-xylene	96.4		Limits: 25-125%	10	06/11/20 17:17	VIC	L495895

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.

Ms. Jenny Rickford O'Brien

2704 Cherokee Farm Way²Suite 101

Suite 101

Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/12/2020

Received : 06/05/2020



Andrea R. Brownfield
Project manager

Report Number : **20-157-0035**

REPORT OF ANALYSIS

Lab No : **90545**

Sample ID : **ED-DU05 - EB**

Matrix: **Aqueous**

Sampled: **6/4/2020 13:45**

Analytical Method: 8082A

Prep Batch(es): **L495427** 06/09/20 11:15

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/10/20 00:20	VIC	L495679
Aroclor 1221	<0.50	µg/L	0.50	1	06/10/20 00:20	VIC	L495679
Aroclor 1232	<0.50	µg/L	0.50	1	06/10/20 00:20	VIC	L495679
Aroclor 1242	<0.50	µg/L	0.50	1	06/10/20 00:20	VIC	L495679
Aroclor 1248	<0.50	µg/L	0.50	1	06/10/20 00:20	VIC	L495679
Aroclor 1254	<0.50	µg/L	0.50	1	06/10/20 00:20	VIC	L495679
Aroclor 1260	<0.50	µg/L	0.50	1	06/10/20 00:20	VIC	L495679
Surrogate: Decachlorobiphenyl	41.5		Limits: 36-116%	1	06/10/20 00:20	VIC	L495679
Surrogate: Tetrachloro-m-xylene	69.7		Limits: 25-123%	1	06/10/20 00:20	VIC	L495679

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-157-0035

QC Prep: L495427 **QC Analytical Batch(es):** L495679
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L495427 Matrix: AQU
Associated Lab Samples: 90545

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1221	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1232	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1242	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1248	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1254	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1260	µg/L	< 0.200	0.200	06/09/20 18:52		
Decachlorobiphenyl (S)				06/09/20 18:52	69.1	36-116
Tetrachloro-m-xylene (S)				06/09/20 18:52	68.1	25-123

Laboratory Control Sample & LCSD LCS-L495427 LCSD-L495427

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.44	4.63	109	92.6	44-116	16.0	20.0
Aroclor 1260	µg/L	5.00	5.55	4.62	111	92.4	43-129	18.2	20.0
Decachlorobiphenyl (S)					54.0	80.1	36-116		
Tetrachloro-m-xylene (S)					77.8	73.6	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-157-0035

QC Prep: L495760 **QC Analytical Batch(es):** L495895
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L495760 Matrix: SOL
 Associated Lab Samples: 90470, 90495, 90520

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Decachlorobiphenyl (S)				06/11/20 13:17	83.5	25-125
Tetrachloro-m-xylene (S)				06/11/20 13:17	91.0	25-125

Laboratory Control Sample LCS-L495760

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.138	82.6	50-125
Aroclor 1260	mg/Kg	0.167	0.144	86.2	50-125
Decachlorobiphenyl (S)				75.0	25-125
Tetrachloro-m-xylene (S)				90.0	25-125

Matrix Spike & Matrix Spike Duplicate L 90470-MS-L495760 L 90470-MSD-L495760

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.114	0.116	1.44	1.28	1260*	1100*	40-140	11.7	30
Aroclor 1260	mg/Kg	<0.0667	0.114	0.116	0.190	0.159	167*	137	40-140	17.7	30
Decachlorobiphenyl (S)							105	82.1	25-125		
Tetrachloro-m-xylene (S)							110	118	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-157-0035**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #70

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID: 137367
Initiated By: Andrea Brownfield
Initiated Date: 5/20/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0035
 25226
 06-05-2020
 11:30:13

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU05	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1036	ED-DU05-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1045	ED-DU05-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments Waypoint to generate MS/MSD sample from ED-DU05- Primary for PCB analysis	
Ice Y/N	Custody Seals Y/N	Lab Comments Custody Seals received on: Cooler(s) Container(s)	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/4 1800
Blank/Cooler Temp 0.5°C T70 0.6°C TP			Relinquished by: (SIGNATURE)	Received by: (SIGNATURE) 6/5/20 08:45



Kit ID:	137367
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0035
 25226
 06-05-2020
 11:30:13

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU05	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1048	ED-DU05-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
}	1036	ED-DU05-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien	See page 1				
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/4	1800			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
0.5°C T70								
0.6°C TP								

received on:
 Cooler(s) / Container(s)

J. O'Brien 6/5/20 08:45



Kit ID:	137367
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-157-0035
 25226
 06-05-2020
 11:30:13
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1045	ED-DU05-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1048	ED-DU05-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien	See page 1 received on: Cooler(s)/ Container(s)			
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
			Jenny O'Brien	6/4	1800		
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

Blank/Cooler Temp
 0.5°C T-70
 0.6°C TP

[Signature]
 6/5/20
 08:45



Kit ID: 137367
Initiated By: Andrea Brownfield
Initiated Date: 5/20/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0035
 25226
 06-05-2020
 11:30:13

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU05	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1036	ED-DU05-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1045	ED-DU05-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1				Custody Seals received on: Cooler(s) / Container(s)	
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/4 1800	Received by: (SIGNATURE)			Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)			Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)			Date Time		
Blank/Cooler Temp 0.5°C T70 0.6°C TP			Signature: [Handwritten Signature] Date: 6/5/20 Time: 08:45							



Kit ID:	137367
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU05	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1648	ED-DU05-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1636	ED-DU05-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1648	ED-DU05-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments See page 1				
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 0.5°C T30 0.6°C TP			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time

Custody Seals
 received on:
 Cooler(s) / Container(s)
 [Signature]
 6/5/20
 08:45



Kit ID: 137367
Initiated By: Andrea Brownfield
Initiated Date: 5/20/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0035
 25226
 06-05-2020
 11:30:13

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU05	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1045	ED-DU05-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny Brownfield Brown	Client Remarks/Comments See page 1		Custody Seals received on: Cooler(s) / Container(s)	
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny Brown	Date 6/4	Time 1800	Received by: (SIGNATURE)	Date 6/5/20
Blank/Cooler Temp 0.5°C T70 0.6°C TP			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date 08:45



Kit ID: 137367
Initiated By: Andrea Brownfield
Initiated Date: 5/20/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-157-0035
 25226
 06-05-2020
 11:30:13
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU05	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1036	ED-DU05-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1045	ED-DU05-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments Sec page 1				
Ice O/N	Custody Seals O/N	Lab Comments Blank/Cooler Temp 0.5°C T70 0.6°C (TP)	Relinquished by: (SIGNATURE) Jenny O'Brien		Date 6/4	Time 1800	Received by: (SIGNATURE)		Date 6/5/20
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date

Custody Seals

received on:

Cooler(s) Container(s)



Kit ID:	137367
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0035
 25226
 06-05-2020
 11:30:13

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordbrien@cecinc.com	Arcoric-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1048	ED-DU05-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/4	1800				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.5°C T10							J. P. [Signature]		6/5/20	
0.6°C TP										08:45

Custody Seals

received on:
 Cooler(s) / Container(s)



Kit ID:	137367
Initiated By:	Andrea Brownfield
Initiated Date:	5/20/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1045	ED-DU05-22S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU05-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1045	ED-DU05-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1048	ED-DU05-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals received on:		
Ice	Custody Seals	Lab Comments	Jenny O'Brien	See page 1		Cooler(s) Container(s)		
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/4	1800			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
0.5°C T70 0.6°C TP						J. Phillips	6/5/20 08:45	



Kit ID: 137367
Initiated By: Andrea Brownfield
Initiated Date: 5/20/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226		Client Project Manager/Contact Civil & Environmental Consultants, Inc.		Purchase Order Number		
Site Name DU05		Project Number 172-367		<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed		Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com		Site/Facility ID # Arconic-Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1345	ED-DU05-EB	Aqueous		2	Glass Amber - Liter	NONE	8082 - PCBs


 20-157-0035
 25226
 06-05-2020
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM
 11:30:13

Custody Seals
 received on:
 Cooler(s) Container(s)

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/4	1345			
Blank/Cooler Temp 0.5°C T70 0.6°C TP			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
						J. Phillips	6/5/20	08:45



6/12/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-157-0033
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/5/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-157-0033
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
90325	ED-DU04 - Primary - Composite	Solids	06/04/2020 15:07	06/05/2020
90358	ED-DU04 - Secondary - Composite	Solids	06/04/2020 15:08	06/05/2020
90391	ED-DU04 - Tertiary - Composite	Solids	06/04/2020 15:09	06/05/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/12/2020
Received : 06/05/2020



Report Number : **20-157-0033**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **90325**

Matrix: **Solids**

Sample ID : **ED-DU04 - Primary - Composite**

Sampled: **6/4/2020 15:07**

Analytical Method: 8082A

Prep Batch(es): **L495760** 06/10/20 17:15

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/11/20 15:28	VIC	L495895
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/11/20 15:28	VIC	L495895
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/11/20 15:28	VIC	L495895
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/11/20 15:28	VIC	L495895
Aroclor 1248	9.06	mg/Kg	1.00	100	06/11/20 18:28	VIC	L495895
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/11/20 15:28	VIC	L495895
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/11/20 15:28	VIC	L495895
Surrogate: Decachlorobiphenyl	120		Limits: 25-125%	10	06/11/20 15:28	VIC	L495895
Surrogate: Tetrachloro-m-xylene	124		Limits: 25-125%	10	06/11/20 15:28	VIC	L495895

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/12/2020
Received : 06/05/2020



Report Number : **20-157-0033**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **90358**

Matrix: **Solids**

Sample ID : **ED-DU04 - Secondary - Composite**

Sampled: **6/4/2020 15:08**

Analytical Method: 8082A

Prep Batch(es): **L495760** 06/10/20 17:15

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/11/20 15:50	VIC	L495895
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/11/20 15:50	VIC	L495895
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/11/20 15:50	VIC	L495895
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/11/20 15:50	VIC	L495895
Aroclor 1248	19.7	mg/Kg	1.00	100	06/11/20 18:50	VIC	L495895
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/11/20 15:50	VIC	L495895
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/11/20 15:50	VIC	L495895
Surrogate: Decachlorobiphenyl	74.4		Limits: 25-125%	10	06/11/20 15:50	VIC	L495895
Surrogate: Tetrachloro-m-xylene	98.3		Limits: 25-125%	10	06/11/20 15:50	VIC	L495895

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/12/2020
Received : 06/05/2020



Report Number : **20-157-0033**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **90391**

Matrix: **Solids**

Sample ID : **ED-DU04 - Tertiary - Composite**

Sampled: **6/4/2020 15:09**

Analytical Method: 8082A

Prep Batch(es): **L495760** 06/10/20 17:15

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/11/20 16:12	VIC	L495895
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/11/20 16:12	VIC	L495895
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/11/20 16:12	VIC	L495895
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/11/20 16:12	VIC	L495895
Aroclor 1248	10.2	mg/Kg	1.00	100	06/11/20 19:12	VIC	L495895
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/11/20 16:12	VIC	L495895
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/11/20 16:12	VIC	L495895
Surrogate: Decachlorobiphenyl	89.6		Limits: 25-125%	10	06/11/20 16:12	VIC	L495895
Surrogate: Tetrachloro-m-xylene	119		Limits: 25-125%	10	06/11/20 16:12	VIC	L495895

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-157-0033

QC Prep: L495760 **QC Analytical Batch(es):** L495895
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L495760 Matrix: SOL
 Associated Lab Samples: 90325, 90358, 90391

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/11/20 13:17		
Decachlorobiphenyl (S)				06/11/20 13:17	83.5	25-125
Tetrachloro-m-xylene (S)				06/11/20 13:17	91.0	25-125

Laboratory Control Sample LCS-L495760

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.138	82.6	50-125
Aroclor 1260	mg/Kg	0.167	0.144	86.2	50-125
Decachlorobiphenyl (S)				75.0	25-125
Tetrachloro-m-xylene (S)				90.0	25-125

Matrix Spike & Matrix Spike Duplicate L 90470-MS-L495760 L 90470-MSD-L495760

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.114	0.116	1.44	1.28	1260*	1100*	40-140	11.7	30
Aroclor 1260	mg/Kg	<0.0667	0.114	0.116	0.190	0.159	167*	137	40-140	17.7	30
Decachlorobiphenyl (S)							105	82.1	25-125		
Tetrachloro-m-xylene (S)							110	118	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-157-0033**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #70

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



CHAIN-OF-CUSTODY

Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0033
 25226
 06-05-2020
 10:58:47

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1507	ED-DU04-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1508	ED-DU04-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Cooler(s) Container(s)					
Q/N	Q/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/4	1800				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp 0.9 T90 2.7 TP							[Signature] 6/5/20 08:45			



CHAIN-OF-CUSTODY

Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1509	ED-DU04-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1507	ED-DU04-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s) / Container(s)				
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		6/4	1800			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
0.9°C T70 2.7°C TP							J. O'Brien	6/5/20	08:45



CHAIN-OF-CUSTODY

Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU04	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1508	ED-DU04-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1509	ED-DU04-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	received on: Cooler(s) / Container(s)			
Blank/Cooler Temp 0.9°C TP 2.7°C TP			Date Time	Received by: (SIGNATURE)	Date Time	
			6/4	1:00		
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	

6/5/20
08:45



20-157-0033
25226
Civil & Environmental Consultants, Inc.
Elliott Ditch Remediation Confirmation - ISM
06-05-2020
10:58:47

Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU04	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1507	ED-DU04-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments				Custody Seals	
Ice	Custody Seals		received on:		Cooler(s)		Container(s)	
Y/N	Y/N		Relinquished by: (SIGNATURE) Jenny O'Brien	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 0.9°C T70 2.7°C TP			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time

J. P. Wheeler 6/5/20
08:45

CHAIN-OF-CUSTODY

Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0033
 25226
 06-05-2020
 10:58:47

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1509	ED-DU04-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
√	1507	ED-DU04-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals	
Ice	Custody Seals	Jenny O'Brien			received on:	
O/N	O/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
		Jenny O'Brien	6/4	1800		
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
Blank/Cooler Temp						
0.9°C T70						
2.7°C (TP)						



Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0033
 25226
 06-05-2020
 10:58:47

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrckfordobrien@cecinc.com	Arolic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1503	ED-DU04-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1509	ED-DU04-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien						received on:	
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/4	1800				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.9°C (TP) 2.7°C (TP)							J. Phillips		6/5/20	08:45



Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordbrien@cecinc.com	Aromatic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1507	ED-DU04-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1508	ED-DU04-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/4	1800				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.9°C T70 2.7°C TP							J. Phillips		6/5/20	08:45



20-157-0033
25226
06-05-2020
10:58:47

Civil & Environmental Consultants, Inc.
Elliott Ditch Remediation Confirmation - ISM

CHAIN-OF-CUSTODY

Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1509	ED-DU04-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Cooler(s) Container(s)			
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date Time
					6/4	1800		
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time
0.9°C T70 2.7°C (TP)								
			Relinquished by: (SIGNATURE)					

[Signature] 6/5/20
08:45



Kit ID: 137368
Initiated By: Andrea Brownfield
Initiated Date: 6/1/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0033
 25226
 06-05-2020
 10:58:47

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU04	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Aromatic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1508	ED-DU04-22S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1509	ED-DU04-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments received on: Cooler(s) / Container(s)			
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/Cooler Temp 0.9°C T70 2.7°C TP	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/4	Time 1800	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time

[Handwritten Signature]
 06/5/20
 08:45



CHAIN-OF-CUSTODY

Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0033
 25226
 06-05-2020
 10:58:47

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1507	ED-DU04-25P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-25S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-25T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-26P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-26S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-26T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-27P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-27S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/4 1800					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/ Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
0.9°C TP 2.7°C TP							A. Phillip		6/5/20 08:45	



Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-157-0033
 25226
 06-05-2020
 10:58:47
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1509	ED-DU04-27T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-28P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-28S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-28T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-29P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-29S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-29T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-30P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: <u>Cooler(s)</u> Container(s)			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/4	1800			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time

Blank/Cooler Temp
 0.9°C T70
 2.7°C TP

[Signature] 6/5/20
 08:45



Kit ID: 137368
Initiated By: Andrea Brownfield
Initiated Date: 6/1/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-157-0033
 25226
 06-05-2020
 10:58:47

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU04	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Aromatic Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1508	ED-DU04-30S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-30T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-31P	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-31S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-31T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1507	ED-DU04-32P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1508	ED-DU04-32S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1509	ED-DU04-32T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien		Date 6/4	Time 1800	Received by: (SIGNATURE) A. Phillips		Date 6/5/20	Time 08:45
Blank/Cooler Temp 0.9°C T70 2.7°C TP			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time

Custody Seals

received on:
 Cooler(s) Container(s)



CHAIN-OF-CUSTODY

Kit ID:	137368
Initiated By:	Andrea Brownfield
Initiated Date:	6/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

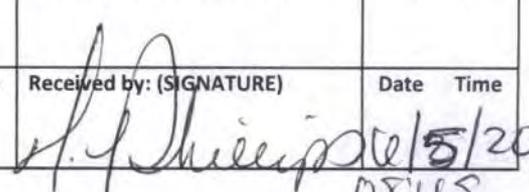
Company Name Civil & Environmental Consultants, Inc.		Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.		Purchase Order Number			
Site Name DU04		Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed		Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other			
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com		Site/Facility ID # Arcenic - Elliott Ditch			
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1600	ED-DU04-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs


 20-157-0033
 25226
 06-05-2020
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM
 10:58:47


 20-157-0034
 25226
 06-05-2020
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM
 11:19:29

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s)/ Container(s)			
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/4	1800			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
0.9°C (F) 70 2.7°C (TP)								


 08:45



6/11/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-157-0034
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/5/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	2/28/2021
Arizona	State Program	AZ0816	8/30/2020
Arkansas	State Program	88-0650	2/7/2021
California	State Program	2904	5/10/2020
Georgia	State Program	C044	2/18/2023
Georgia	State Program	04015	6/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	6/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	6/30/2020
Mississippi	State Program	MS	5/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	8/31/2020
Pennsylvania	State Program - NELAP	68-03195	5/31/2021
South Carolina	State Program	84002	5/10/2020
South Carolina	State Program	84002	6/30/2020
Tennessee	State Program	02027	2/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	9/30/2020
Virginia	State Program	00106	6/30/2020
Virginia	State Program - NELAP	460181	9/14/2020
Washington	State Program	C1018	7/31/2020

Sample Summary Table

Report Number: 20-157-0034
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
90439	ED-DU04 - EB	Aqueous	06/04/2020 16:00	06/05/2020

Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-157-0034
Date: 6/11/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 90439 (ED-DU04 - EB)

Analyte: Decachlorobiphenyl

QC Batch No: L495679/L495427

Surrogate(s) were flagged for recoveries in the associated project sample. During the extraction step, the extraction technician noted that a significant emulsion formed. Batch QC samples (Method Blank and Laboratory Control Samples) all showed surrogate recoveries within QC limits, indicating that the biased recoveries were due to the sample matrix.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Report Date : 06/11/2020
Received : 06/05/2020



Report Number : **20-157-0034**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **90439**

Matrix: **Aqueous**

Sample ID : **ED-DU04 - EB**

Sampled: **6/4/2020 16:00**

Analytical Method: 8082A **Prep Batch(es):** **L495427** 06/09/20 11:15

Prep Method: 3510C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/09/20 23:58	VIC	L495679
Aroclor 1221	<0.50	µg/L	0.50	1	06/09/20 23:58	VIC	L495679
Aroclor 1232	<0.50	µg/L	0.50	1	06/09/20 23:58	VIC	L495679
Aroclor 1242	<0.50	µg/L	0.50	1	06/09/20 23:58	VIC	L495679
Aroclor 1248	<0.50	µg/L	0.50	1	06/09/20 23:58	VIC	L495679
Aroclor 1254	<0.50	µg/L	0.50	1	06/09/20 23:58	VIC	L495679
Aroclor 1260	<0.50	µg/L	0.50	1	06/09/20 23:58	VIC	L495679
Surrogate: Decachlorobiphenyl	18.3 *		Limits: 36-116%	1	06/09/20 23:58	VIC	L495679
Surrogate: Tetrachloro-m-xylene	48.3		Limits: 25-123%	1	06/09/20 23:58	VIC	L495679

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-157-0034

QC Prep: L495427 **QC Analytical Batch(es):** L495679
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L495427 Matrix: AQU
Associated Lab Samples: 90439

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1221	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1232	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1242	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1248	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1254	µg/L	< 0.200	0.200	06/09/20 18:52		
Aroclor 1260	µg/L	< 0.200	0.200	06/09/20 18:52		
Decachlorobiphenyl (S)				06/09/20 18:52	69.1	36-116
Tetrachloro-m-xylene (S)				06/09/20 18:52	68.1	25-123

Laboratory Control Sample & LCSD LCS-L495427 LCSD-L495427

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.44	4.63	109	92.6	44-116	16.0	20.0
Aroclor 1260	µg/L	5.00	5.55	4.62	111	92.4	43-129	18.2	20.0
Decachlorobiphenyl (S)					54.0	80.1	36-116		
Tetrachloro-m-xylene (S)					77.8	73.6	25-123		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-157-0034**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



CHAIN-OF-CUSTODY

Kit ID: 137368
Initiated By: Andrea Brownfield
Initiated Date: 6/1/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226		Client Project Manager/Contact Civil & Environmental Consultants, Inc.			Purchase Order Number		
Site Name DU04		Project Number 172-367		<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com			Site/Facility ID # Arcenic - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
6/4	1600	ED-DU04-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs	


 20-157-0033
 25226
 06-05-2020
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM
 10:58:47


 20-157-0034
 25226
 06-05-2020
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM
 11:19:29

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s)/ Container(s)			
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
0.9°C (F) 70 2.7°C (TP)			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
					[Signature] 6/5/20 08:45			

6/18/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-161-0036
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/9/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

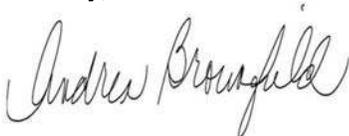
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	05/10/2020
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-161-0036
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
91275	ED-DU03 - Primary - Composite	Solids	06/08/2020 14:30	06/09/2020
91276	ED-DU03 - Primary - Composite - Duplicate	Solids	06/08/2020 14:30	06/09/2020
91303	ED-DU03 - Secondary - Composite	Solids	06/08/2020 15:00	06/09/2020
91330	ED-DU03 - Tertiary - Composite	Solids	06/08/2020 15:30	06/09/2020
91410	ED-DU03-EB	Aqueous	06/08/2020 16:20	06/09/2020



Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-161-0036
Date: 6/17/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 91276 (ED-DU03 - Primary - Composite - Duplicate)

Analyte: Decachlorobiphenyl

QC Batch No: L496917/L496882

Surrogate(s) was flagged for recovery outside QC limits in this project sample. This sample was re-analyzed for verification, and/or dilution of target analytes. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/18/2020
Received : 06/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-161-0036**

REPORT OF ANALYSIS

Lab No : **91275**

Matrix: **Solids**

Sample ID : **ED-DU03 - Primary - Composite**

Sampled: **6/8/2020 14:30**

Analytical Method: 8082A

Prep Batch(es): **L496882** 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/17/20 13:03	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/17/20 13:03	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/17/20 13:03	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/17/20 13:03	VIC	L496917
Aroclor 1248	3.20	mg/Kg	1.00	10	06/17/20 13:03	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/17/20 13:03	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/17/20 13:03	VIC	L496917
Surrogate: Decachlorobiphenyl	107		Limits: 25-125%	10	06/17/20 13:03		L496917
Surrogate: Tetrachloro-m-xylene	102		Limits: 25-125%	10	06/17/20 13:03		L496917

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/18/2020
Received : 06/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-161-0036**

REPORT OF ANALYSIS

Lab No : **91276**

Matrix: **Solids**

Sample ID : **ED-DU03 - Primary - Composite - Duplicate**

Sampled: **6/8/2020 14:30**

Analytical Method: 8082A

Prep Batch(es): **L496882** 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/17/20 13:24	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/17/20 13:24	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/17/20 13:24	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/17/20 13:24	VIC	L496917
Aroclor 1248	2.96	mg/Kg	1.00	10	06/17/20 13:24	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/17/20 13:24	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/17/20 13:24	VIC	L496917
Surrogate: Decachlorobiphenyl	147 *		Limits: 25-125%	10	06/17/20 13:24		L496917
Surrogate: Tetrachloro-m-xylene	97.7		Limits: 25-125%	10	06/17/20 13:24		L496917

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/18/2020

Received : 06/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-161-0036**

REPORT OF ANALYSIS

Lab No : **91303**

Matrix: **Solids**

Sample ID : **ED-DU03 - Secondary - Composite**

Sampled: **6/8/2020 15:00**

Analytical Method: 8082A **Prep Batch(es):** **L496882** 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/17/20 13:46	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/17/20 13:46	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/17/20 13:46	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/17/20 13:46	VIC	L496917
Aroclor 1248	10.3	mg/Kg	1.00	100	06/17/20 15:29	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/17/20 13:46	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/17/20 13:46	VIC	L496917
Surrogate: Decachlorobiphenyl	86.0		Limits: 25-125%	10	06/17/20 13:46		L496917
Surrogate: Tetrachloro-m-xylene	95.0		Limits: 25-125%	10	06/17/20 13:46		L496917

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/18/2020

Received : 06/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-161-0036**

REPORT OF ANALYSIS

Lab No : **91330**

Matrix: **Solids**

Sample ID : **ED-DU03 - Tertiary - Composite**

Sampled: **6/8/2020 15:30**

Analytical Method: 8082A

Prep Batch(es): **L496882** 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/17/20 14:08	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/17/20 14:08	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/17/20 14:08	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/17/20 14:08	VIC	L496917
Aroclor 1248	2.50	mg/Kg	1.00	10	06/17/20 14:08	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/17/20 14:08	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/17/20 14:08	VIC	L496917
Surrogate: Decachlorobiphenyl	111		Limits: 25-125%	10	06/17/20 14:08		L496917
Surrogate: Tetrachloro-m-xylene	84.5		Limits: 25-125%	10	06/17/20 14:08		L496917

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/18/2020

Received : 06/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-161-0036**

REPORT OF ANALYSIS

Lab No : **91410**

Matrix: **Aqueous**

Sample ID : **ED-DU03-EB**

Sampled: **6/8/2020 16:20**

Analytical Method: 8082A **Prep Batch(es):** L496174 06/12/20 14:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/15/20 21:16	VIC	L496620
Aroclor 1221	<0.50	µg/L	0.50	1	06/15/20 21:16	VIC	L496620
Aroclor 1232	<0.50	µg/L	0.50	1	06/15/20 21:16	VIC	L496620
Aroclor 1242	<0.50	µg/L	0.50	1	06/15/20 21:16	VIC	L496620
Aroclor 1248	<0.50	µg/L	0.50	1	06/15/20 21:16	VIC	L496620
Aroclor 1254	<0.50	µg/L	0.50	1	06/15/20 21:16	VIC	L496620
Aroclor 1260	<0.50	µg/L	0.50	1	06/15/20 21:16	VIC	L496620
Surrogate: Decachlorobiphenyl	74.7		Limits: 36-116%	1	06/15/20 21:16	VIC	L496620
Surrogate: Tetrachloro-m-xylene	76.0		Limits: 25-123%	1	06/15/20 21:16	VIC	L496620

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-161-0036

QC Prep: L496174 **QC Analytical Batch(es):** L496620
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496174 Matrix: AQU
Associated Lab Samples: 91410

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1221	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1232	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1242	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1248	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1254	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1260	µg/L	< 0.200	0.200	06/15/20 16:05		
Decachlorobiphenyl (S)				06/15/20 16:05	22.3	36-116
Tetrachloro-m-xylene (S)				06/15/20 16:05	33.1	25-123

Laboratory Control Sample & LCSD LCS-L496174 LCSD-L496174

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.40	2.23	68.0	44.6	44-116	41.5*	20.0
Aroclor 1260	µg/L	5.00	3.51	1.80	70.2	36.0*	43-129	64.4*	20.0
Decachlorobiphenyl (S)					23.8*	22.8*	36-116		
Tetrachloro-m-xylene (S)					45.8	36.6	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-161-0036

QC Prep: L496882 **QC Analytical Batch(es):** L496917
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496882 Matrix: SOL
 Associated Lab Samples: 91275, 91276, 91303, 91330

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Decachlorobiphenyl (S)				06/17/20 12:19	105	25-125
Tetrachloro-m-xylene (S)				06/17/20 12:19	66.5	25-125

Laboratory Control Sample LCS-L496882

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.163	97.6	50-125
Aroclor 1260	mg/Kg	0.167	0.207	124	50-125
Decachlorobiphenyl (S)				104	25-125
Tetrachloro-m-xylene (S)				76.5	25-125

Matrix Spike & Matrix Spike Duplicate L 92447-MS-L496882 L 92447-MSD-L496882

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.102	0.104	8.39	8.83	8230*	8490*	40-140	5.1	30
Aroclor 1260	mg/Kg	<0.0667	0.102	0.104	1.03	1.11	1010*	1070*	40-140	7.4	30
Decachlorobiphenyl (S)							40.0	31.7	25-125		
Tetrachloro-m-xylene (S)							110	123	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-161-0036**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #99

Shipping container/cooler uncompromised? Yes No

Number of coolers/boxes received

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of Custody (COC) present? Yes No

COC agrees with sample label(s)? Yes No

COC properly completed Yes No

Samples in proper containers? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test(s)? Yes No

All samples received within holding time? Yes No

Cooler temperature in compliance? Yes No

Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun. Yes No

Water - Sample containers properly preserved Yes No N/A

Water - VOA vials free of headspace Yes No N/A

Trip Blanks received with VOAs Yes No N/A

Soil VOA method 5035 – compliance criteria met Yes No N/A

High concentration container (48 hr) Low concentration EnCore samplers (48 hr)
 High concentration pre-weighed (methanol -14 d) Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included? Yes No

Comments:

Signature:

Date & Time:



Kit ID:	137369
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-161-0036
 25226
 06-09-2020
 10:12:10

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/8	1430	ED-DU03-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments Waypoint to generate field duplicate sample from ED-DU03 - Primary for PCB analysis			
Ice Y/N	Custody Seals Y/N	Lab Comments Custody Seals received on: Cooler(s) / Container(s)	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/8 1730	Received by: (SIGNATURE)	Date Time		
Blank/Cooler Temp 4.7 T99			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
4.5 T99			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	6/9/20 09:20	



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 Civil & Environmental Consultants, Inc. 06-09-2020
 Elliott Ditch Remediation Confirmation - iSM 10:12:10

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/8	1530	ED-DU03-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	✓	1430	ED-DU03-06P	Solids		1	Glass - 4oz	NONE

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments		Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1		received on: Cooler(s) / Container(s)	
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
			Jenny O'Brien		6/8	1730		
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
							4. Phillips 6/9/20	
							09:20	



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Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/8	1500	ED-DU03-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU03-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1				received on: Cooler(s) / Container(s)	
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)		Date	Time
					6/8	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
							[Signature]		6/9/20	09:20



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20-161-0036
 25226
 06-09-2020
 10:12:10

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/8	1430	ED-DU03-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1500	ED-DU03-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien	See page 1				received on:	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	Cooler(s) / Container(s)
			Jenny O'Brien	6/8	1730				
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time		
Blank / Cooler Temp									
4.7°C T99 4.5°C (SH)									



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Initiated Date:	6/3/2020
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CHAIN-OF-CUSTODY



Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.
Site Name DU03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com
		Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other Arconic Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/4	1530	ED-DU03-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1430	ED-DU03-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments	Custody Seals
Ice	Custody Seals	Lab Comments	Jenny O'Brien	See page 1	received on: Cooler(s) / Container(s)
Y/N	Y/N		Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/8 1730	Received by: (SIGNATURE)
			Relinquished by: (SIGNATURE)	Date Time	Date Time
			Relinquished by: (SIGNATURE)	Date Time	Date Time

Blank/Cooler Temp
 4.7°C T99
 4.5°C 5H

6/9/20 09:20



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20-161-0036
 25226
 06-09-2020 10:12:10
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Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/8	1500	ED-DU03-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals		
Ice	Custody Seals	Lab Comments	Jenny O'Brien	See page 1		received on:		
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/8	1730			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
4.7°C T99								
4.5°C SH								

[Signature] 6/19/20
 09:20



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Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU03	172-307		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/8	1430	ED-DU03-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1500	ED-DU03-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals
Ice	Custody Seals	Jenny O'Brien	See page 1		received on:
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) / Date
		Jenny O'Brien	6/8	1730	
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)
					6/19/20
					09:20



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 06-09-2020
 10:12:10
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Company Name	Company Number	Client Project Manager/Contact	Purchase Order #
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Aroanic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/8	1530	ED-DU03-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1430	ED-DU03-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1 received on: Cooler(s) / Container(s)				
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N		Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date	Time
					6/8	1730			
			Relinquished by: (SIGNATURE)						
			Relinquished by: (SIGNATURE)						

Blank/Cooler Temp
 4.7°C T99
 4.5°C (ST)

[Signature] 6/9/20
 09:20



Kit ID:	137369
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-161-0036
 25226
 06-09-2020
 10:12:10
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	1500	ED-DU03-22S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1530	ED-DU03-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments See Page 1		Custody Seals received on: Cooler(s) / Container(s)
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/3	Time 1730	Received by: (SIGNATURE)
Blank / Cooler Temp 4.7°C T99 4.5°C (5H)		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) 6/9/20 09:20

Kit ID:	137369
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase #
Site Name DU03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Aroanic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/3	1430	ED-DU03-25P	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-25S	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-25T	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1430	ED-DU03-26P	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1500	ED-DU03-26S	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1530	ED-DU03-26T	SOL		1	Glass - 4oz	NONE	8082 - PCBs
✓	1620	ED-DU03-EB	AQU		2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1			received on: Cooler(s) Container(s)	
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/3 1730	Received by: (SIGNATURE)			Date Time	
Blank/Cooler Temp 4.7°C T99 4.5°C (SH)			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)			Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)			Date Time 6/9/20 09:20	

6/18/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-163-0051
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/11/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

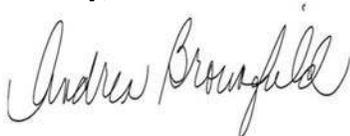
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	05/10/2020
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-163-0051
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
92447	ED-DU02 - Primary - Composite	Solids	06/10/2020 07:55	06/11/2020
92474	ED-DU02 - Secondary - Composite	Solids	06/10/2020 07:57	06/11/2020
92501	ED-DU02 - Tertiary - Composite	Solids	06/10/2020 08:07	06/11/2020
92528	ED-DU02 - EB	Aqueous	06/10/2020 08:45	06/11/2020

Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-163-0051
Date: 6/18/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 92501 (ED-DU02 - Tertiary - Composite)

Analyte: Decachlorobiphenyl

QC Batch No: L496917/L496882

Surrogate(s) flagged for recovery outside QC limits in this project sample due to a required dilution. The dilution factor resulted in surrogate concentration(s) below the minimum detectable level. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172367

Report Date : 06/18/2020

Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0051**

REPORT OF ANALYSIS

Lab No : **92447**

Matrix: **Solids**

Sample ID : **ED-DU02 - Primary - Composite**

Sampled: **6/10/2020 7:55**

Analytical Method: 8082A **Prep Batch(es):** L496882 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/17/20 14:30	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/17/20 14:30	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/17/20 14:30	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/17/20 14:30	VIC	L496917
Aroclor 1248	3.66	mg/Kg	1.00	10	06/17/20 14:30	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/17/20 14:30	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/17/20 14:30	VIC	L496917
Surrogate: Decachlorobiphenyl	107		Limits: 25-125%	10	06/17/20 14:30	VIC	L496917
Surrogate: Tetrachloro-m-xylene	104		Limits: 25-125%	10	06/17/20 14:30	VIC	L496917

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172367

Report Date : 06/18/2020
Received : 06/11/2020



Report Number : **20-163-0051**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **92474**

Matrix: **Solids**

Sample ID : **ED-DU02 - Secondary - Composite**

Sampled: **6/10/2020 7:57**

Analytical Method: 8082A

Prep Batch(es): **L496882** 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	100	06/17/20 16:16	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	100	06/17/20 16:16	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	100	06/17/20 16:16	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	100	06/17/20 16:16	VIC	L496917
Aroclor 1248	3.21	mg/Kg	1.00	100	06/17/20 16:16	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	100	06/17/20 16:16	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	100	06/17/20 16:16	VIC	L496917
Surrogate: Decachlorobiphenyl	91.7		Limits: 25-125%	100	06/17/20 16:16	VIC	L496917
Surrogate: Tetrachloro-m-xylene	100		Limits: 25-125%	100	06/17/20 16:16	VIC	L496917

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172367

Report Date : 06/18/2020

Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0051**

REPORT OF ANALYSIS

Lab No : **92501**

Matrix: **Solids**

Sample ID : **ED-DU02 - Tertiary - Composite**

Sampled: **6/10/2020 8:07**

Analytical Method: 8082A

Prep Batch(es): **L496882** 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	100	06/17/20 16:37	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	100	06/17/20 16:37	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	100	06/17/20 16:37	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	100	06/17/20 16:37	VIC	L496917
Aroclor 1248	8.93	mg/Kg	1.00	100	06/17/20 16:37	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	100	06/17/20 16:37	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	100	06/17/20 16:37	VIC	L496917
Surrogate: Decachlorobiphenyl	11.7 *		Limits: 25-125%	100	06/17/20 16:37	VIC	L496917
Surrogate: Tetrachloro-m-xylene	55.0		Limits: 25-125%	100	06/17/20 16:37	VIC	L496917

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172367

Report Date : 06/18/2020
Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0051**

REPORT OF ANALYSIS

Lab No : **92528**

Matrix: **Aqueous**

Sample ID : **ED-DU02 - EB**

Sampled: **6/10/2020 8:45**

Analytical Method: 8082A

Prep Batch(es): L496174 06/12/20 14:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/15/20 22:00	VIC	L496620
Aroclor 1221	<0.50	µg/L	0.50	1	06/15/20 22:00	VIC	L496620
Aroclor 1232	<0.50	µg/L	0.50	1	06/15/20 22:00	VIC	L496620
Aroclor 1242	<0.50	µg/L	0.50	1	06/15/20 22:00	VIC	L496620
Aroclor 1248	<0.50	µg/L	0.50	1	06/15/20 22:00	VIC	L496620
Aroclor 1254	<0.50	µg/L	0.50	1	06/15/20 22:00	VIC	L496620
Aroclor 1260	<0.50	µg/L	0.50	1	06/15/20 22:00	VIC	L496620
Surrogate: Decachlorobiphenyl	40.5		Limits: 36-116%	1	06/15/20 22:00	VIC	L496620
Surrogate: Tetrachloro-m-xylene	77.3		Limits: 25-123%	1	06/15/20 22:00	VIC	L496620

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-163-0051

QC Prep: L496174 **QC Analytical Batch(es):** L496620
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496174 Matrix: AQU
Associated Lab Samples: 92528

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1221	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1232	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1242	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1248	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1254	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1260	µg/L	< 0.200	0.200	06/15/20 16:05		
Decachlorobiphenyl (S)				06/15/20 16:05	22.3	36-116
Tetrachloro-m-xylene (S)				06/15/20 16:05	33.1	25-123

Laboratory Control Sample & LCSD LCS-L496174 LCSD-L496174

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.40	2.23	68.0	44.6	44-116	41.5*	20.0
Aroclor 1260	µg/L	5.00	3.51	1.80	70.2	36.0*	43-129	64.4*	20.0
Decachlorobiphenyl (S)					23.8*	22.8*	36-116		
Tetrachloro-m-xylene (S)					45.8	36.6	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-163-0051

QC Prep: L496882 **QC Analytical Batch(es):** L496917
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496882 Matrix: SOL
 Associated Lab Samples: 92447, 92474, 92501

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Decachlorobiphenyl (S)				06/17/20 12:19	105	25-125
Tetrachloro-m-xylene (S)				06/17/20 12:19	66.5	25-125

Laboratory Control Sample LCS-L496882

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.163	97.6	50-125
Aroclor 1260	mg/Kg	0.167	0.207	124	50-125
Decachlorobiphenyl (S)				104	25-125
Tetrachloro-m-xylene (S)				76.5	25-125

Matrix Spike & Matrix Spike Duplicate L 92447-MS-L496882 L 92447-MSD-L496882

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.102	0.104	8.39	8.83	8230*	8490*	40-140	5.1	30
Aroclor 1260	mg/Kg	<0.0667	0.102	0.104	1.03	1.11	1010*	1070*	40-140	7.4	30
Decachlorobiphenyl (S)							40.0	31.7	25-125		
Tetrachloro-m-xylene (S)							110	123	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-163-0051**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #101

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID: 137370
Initiated By: Andrea Brownfield
Initiated Date: 6/3/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0051
 25226
 06-11-2020
 10:59:44

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic- Elliott Ditch

see date comment

Date *	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0755	ED-DU02-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments Waypoint to generate MS/MSD sample from ED-DU02- Primary for PCB analysis			
Ice Y/N	Custody Seals Y/N	Lab Component Custody Seals received on Cooler(s)/Container(s)	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/10	Time 1300	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date 6/11/20	Time 08:40
Blank/Cooler Temp 1.6°C T101 1.9°C TP								

* The date on the labels is incorrect. Please use the COC for the correct dates. 1/10



Kit ID: 137370
Initiated By: Andrea Brownfield
Initiated Date: 6/3/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0051
 25226
 06-11-2020
 10:59:44
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

See page 1 for date comment

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0807	ED-DU02-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1			
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/ Cooler Temp 1.6°C T101 1.9°C TP	Relinquished by: (SIGNATURE) Jenny O'Brien		Date 6/10	Time 1800	received on: Cooler(s)/Container(s)	
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time

[Signature] 6/11/20 08:40



Kit ID:	137370
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0051
 25226
 06-11-2020
 10:59:44
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02	Project Number 172-307	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

See page 1 for date comment

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0757	ED-DU02-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments see page 1				received on:	
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien		Date 6/10	Time 1800	Received by: (SIGNATURE)		Date 6/11/20	
Blank/Cooler Temp 1.6°C T101 1.9°C TP			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	

Kit ID:	137370
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0051
 25226
 06-11-2020
 10:59:44

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Use Coc for dates - not labels

Date *	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0755	ED-DU02-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0757	ED-DU02-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments		Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1		received on:	
O/N	O/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
			Jenny O'Brien		6/10	1800		
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
Blank/Cooler Temp							Date Time	
1.6°C T101							6/11/20	
1.9°C (TP)							08:40	

Kit ID:	137370
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0051
 25226
 06-11-2020
 10:59:44

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

USE COC for dates - not labels

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0807	ED-DU02-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	See page 1	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/10	1800
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time
1.6°C T101 1.9°C T10				
		Relinquished by: (SIGNATURE)	Date	Time
			6/11/20	08:40

Kit ID:	137370
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0051
 25226
 06-11-2020
 10:59:44

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02	Abb 172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Use COC for dates - not labels

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0757	ED-DU02-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0807	ED-DU02-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/10	1800				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
1.6°C T101 1.9°C T102							J. Phlips		6/11/20	08:40

Kit ID:	137370
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0051
 25226
 06-11-2020
 10:59:44

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	ARCONIC - Elliott Ditch

USE COC FOR DATES - NOT LABELS

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0755	ED-DU02-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals received on:	
Ice	Custody Seals	Lab Comments	Jenny O'Brien	see page 1		Coolers/Containers	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
			Jenny O'Brien	6/10	1800		
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

Blank/Cooler Temp
 1.6°C T101
 1.9°C TP

[Signature] 6/11/20
 08:40

Kit ID:	137370
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0051
 25226
 06-11-2020
 10:59:44

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02	Project Number 172-307	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Use Doc for dates-not labels

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0807	ED-DU02-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1						
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/Cooler Temp 1.6°C T101 1.9°C TP	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)		Date	Time	
					6/10	1800					
				Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
				Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time

[Signature] 6/11/20
08:40



Kit ID:	137370
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0051
 25226
 06-11-2020
 10:59:44

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arlene - Elliott Ditch

Use Coc for dates - not labels

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0757	ED-DU02-22S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		see page 1					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/10 1800					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	

Blank/Cooler Temp
 1.6°C T101
 1.9°C TP

received on:
 Cooler(s)/Container(s)
 [Signature] 6/11/20 08:40



Kit ID:	137370
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0051
 25226
 06-11-2020
 10:59:44

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Use Doc for dates - not labels

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0755	ED-DU02-25P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-25S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-25T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU02-26P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0757	ED-DU02-26S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0807	ED-DU02-26T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0845	ED-DU02-EB	Aqueous		2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals received on:

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		see page 1 Cooler(s)/Container(s)					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/10	1800				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
1.6 °C T101 1.9 °C TP							J. J. [Signature]		6/11/20	08:40



6/19/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-163-0050
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/11/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	05/10/2020
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-163-0050
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
92361	ED-DU01 - Primary - Composite	Solids	06/10/2020 10:00	06/11/2020
92383	ED-DU01 - Secondary - Composite	Solids	06/10/2020 09:57	06/11/2020
92405	ED-DU01 - Tertiary - Composite	Solids	06/10/2020 10:10	06/11/2020
92443	ED-DU01 - EB	Aqueous	06/10/2020 10:55	06/11/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/19/2020

Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0050**

REPORT OF ANALYSIS

Lab No : **92361**

Matrix: **Solids**

Sample ID : **ED-DU01 - Primary - Composite**

Sampled: **6/10/2020 10:00**

Analytical Method: 8082A **Prep Batch(es):** L496768 06/17/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/18/20 12:13	VIC	L497090
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/18/20 12:13	VIC	L497090
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/18/20 12:13	VIC	L497090
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/18/20 12:13	VIC	L497090
Aroclor 1248	2.01	mg/Kg	1.00	20	06/18/20 13:51	VIC	L497090
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/18/20 12:13	VIC	L497090
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/18/20 12:13	VIC	L497090
Surrogate: Tetrachloro-m-xylene	62.6		Limits: 25-125%	10	06/18/20 12:13	VIC	L497090
Surrogate: Decachlorobiphenyl	91.7		Limits: 25-125%	20	06/18/20 13:51	VIC	L497090

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/19/2020
Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0050**

REPORT OF ANALYSIS

Lab No : **92383**

Matrix: **Solids**

Sample ID : **ED-DU01 - Secondary - Composite**

Sampled: **6/10/2020 9:57**

Analytical Method: 8082A **Prep Batch(es):** **L496768** 06/17/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/18/20 12:57	VIC	L497090
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/18/20 12:57	VIC	L497090
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/18/20 12:57	VIC	L497090
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/18/20 12:57	VIC	L497090
Aroclor 1248	3.71	mg/Kg	1.00	50	06/18/20 14:35	VIC	L497090
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/18/20 12:57	VIC	L497090
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/18/20 12:57	VIC	L497090
Surrogate: Decachlorobiphenyl	97.8		Limits: 25-125%	10	06/18/20 12:57	VIC	L497090
Surrogate: Tetrachloro-m-xylene	94.9		Limits: 25-125%	10	06/18/20 12:57	VIC	L497090

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/19/2020

Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0050**

REPORT OF ANALYSIS

Lab No : **92405**

Matrix: **Solids**

Sample ID : **ED-DU01 - Tertiary - Composite**

Sampled: **6/10/2020 10:10**

Analytical Method: 8082A **Prep Batch(es):** **L496768** 06/17/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/18/20 12:35	VIC	L497090
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/18/20 12:35	VIC	L497090
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/18/20 12:35	VIC	L497090
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/18/20 12:35	VIC	L497090
Aroclor 1248	3.07	mg/Kg	1.00	50	06/18/20 14:13	VIC	L497090
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/18/20 12:35	VIC	L497090
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/18/20 12:35	VIC	L497090
Surrogate: Decachlorobiphenyl	118		Limits: 25-125%	10	06/18/20 12:35	VIC	L497090
Surrogate: Tetrachloro-m-xylene	91.8		Limits: 25-125%	10	06/18/20 12:35	VIC	L497090

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/19/2020

Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0050**

REPORT OF ANALYSIS

Lab No : **92443**

Matrix: **Aqueous**

Sample ID : **ED-DU01 - EB**

Sampled: **6/10/2020 10:55**

Analytical Method: 8082A

Prep Batch(es): **L496174** 06/12/20 14:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/15/20 21:38	VIC	L496620
Aroclor 1221	<0.50	µg/L	0.50	1	06/15/20 21:38	VIC	L496620
Aroclor 1232	<0.50	µg/L	0.50	1	06/15/20 21:38	VIC	L496620
Aroclor 1242	<0.50	µg/L	0.50	1	06/15/20 21:38	VIC	L496620
Aroclor 1248	<0.50	µg/L	0.50	1	06/15/20 21:38	VIC	L496620
Aroclor 1254	<0.50	µg/L	0.50	1	06/15/20 21:38	VIC	L496620
Aroclor 1260	<0.50	µg/L	0.50	1	06/15/20 21:38	VIC	L496620
Surrogate: Decachlorobiphenyl	65.5		Limits: 36-116%	1	06/15/20 21:38	VIC	L496620
Surrogate: Tetrachloro-m-xylene	82.2		Limits: 25-123%	1	06/15/20 21:38	VIC	L496620

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-163-0050

QC Prep: L496174 **QC Analytical Batch(es):** L496620
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496174 Matrix: AQU
 Associated Lab Samples: 92443

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1221	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1232	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1242	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1248	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1254	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1260	µg/L	< 0.200	0.200	06/15/20 16:05		
Decachlorobiphenyl (S)				06/15/20 16:05	22.3	36-116
Tetrachloro-m-xylene (S)				06/15/20 16:05	33.1	25-123

Laboratory Control Sample & LCSD LCS-L496174 LCSD-L496174

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.40	2.23	68.0	44.6	44-116	41.5*	20.0
Aroclor 1260	µg/L	5.00	3.51	1.80	70.2	36.0*	43-129	64.4*	20.0
Decachlorobiphenyl (S)					23.8*	22.8*	36-116		
Tetrachloro-m-xylene (S)					45.8	36.6	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-163-0050

QC Prep: L496768 **QC Analytical Batch(es):** L497090
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496768 Matrix: SOL
 Associated Lab Samples: 92361, 92383, 92405

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/18/20 11:29		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/18/20 11:29		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/18/20 11:29		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/18/20 11:29		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/18/20 11:29		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/18/20 11:29		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/18/20 11:29		
Decachlorobiphenyl (S)				06/18/20 11:29	84.5	25-125
Tetrachloro-m-xylene (S)				06/18/20 11:29	67.5	25-125

Laboratory Control Sample LCS-L496768

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.145	86.8	50-125
Aroclor 1260	mg/Kg	0.167	0.173	104	50-125
Decachlorobiphenyl (S)				102	25-125
Tetrachloro-m-xylene (S)				79.0	25-125

Matrix Spike & Matrix Spike Duplicate L 92361-MS-L496768 L 92361-MSD-L496768

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.105	0.107	7.16	6.63	6820*	6200*	40-140	7.6	30
Aroclor 1260	mg/Kg	<0.0667	0.105	0.107	0.489	0.452	466*	422*	40-140	7.8	30
Decachlorobiphenyl (S)							125*	109	25-125		
Tetrachloro-m-xylene (S)							123	112	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-163-0050**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #101

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID: 137371
Initiated By: Andrea Brownfield
Initiated Date: 6/3/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0050
 25226
 06-11-2020
 10:37:26

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU01	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1000	ED-DU01-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments		Custody Seals	
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/10	Time 1900	Received by: (SIGNATURE)	Date 6/11/20
Blank/ Cooler Temp 2.4°C T101 0.3°C TP		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date

08:40

Kit ID: 137371
Initiated By: Andrea Brownfield
Initiated Date: 6/3/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0050
 25226
 06-11-2020
 10:37:26

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU01	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1010	ED-DU01-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1000	ED-DU01-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments received on: Cooler(s)/Container(s)			
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/Cooler Temp 2.4°C T101 0.3°C TP	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/10	Time 1800	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time

[Handwritten Signature] 6/11/20
 08:40

Kit ID:	137371
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0050
 25226
 06-11-2020
 10:37:26
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0957	ED-DU01-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/10 1500					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
2.4°C T101							J. O'Brien		6/11/20	
0.3°C TP									08:40	



Kit ID:	137371
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0050
 25226
 06-11-2020
 10:37:26

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1000	ED-DU01-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)			
(Y/N)	(Y/N)	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	6/10	1800		
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

Blank/Cooler Temp
 2.4°C T101
 0.3°C TP

[Signature]
 6/11/20
 08:40



Kit ID:	137371
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0050
 25226
 06-11-2020
 10:37:26
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1010	ED-DU01-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1000	ED-DU01-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)			
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	6/10	1000		
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
2.4°C	1101					
0.3°C	IP	Relinquished by: (SIGNATURE)				



Kit ID:	137371
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0050
 25226
 06-11-2020
 10:37:26
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcovic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	0957	ED-DU01-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s)/Container(s)			
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Jenny O'Brien	6/10 1900				
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
2.4°C T101 0.3°C TP							6/11/20 08:40	



Kit ID:	137371
Initiated By:	Andrea Brownfield
Initiated Date:	6/3/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0050
 25226
 06-11-2020
 10:37:26

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1000	ED-DU01-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0957	ED-DU01-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)				
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/10	1800			
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
2.4°C	1101						
0.3°C	TP						
						6/11/20	08:40



Kit ID: 137371
Initiated By: Andrea Brownfield
Initiated Date: 6/3/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0050
 25226
 06-11-2020
 10:37:26

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU01	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1010	ED-DU01-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU01-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1010	ED-DU01-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1055	ED-DU01-EB	Aqueous		2	Glass Amber - Liter	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments			received on:			
					Cooler(s)/Container(s)			
			Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/10 1000	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) P. Phillips		Date Time 6/11/20 08:40	



6/18/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-163-0052
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/11/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	05/10/2020
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-163-0052
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
92622	ED-DU11_02 - Primary - Composite	Solids	06/10/2020 12:48	06/11/2020
92647	ED-DU11_02 - Secondary - Composite	Solids	06/10/2020 12:58	06/11/2020
92672	ED-DU11_02 - Tertiary - Composite	Solids	06/10/2020 13:03	06/11/2020
92697	ED-DU11_02 - EB	Aqueous	06/10/2020 13:48	06/11/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/18/2020

Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0052**

REPORT OF ANALYSIS

Lab No : **92622**

Matrix: **Solids**

Sample ID : **ED-DU11_02 - Primary - Composite**

Sampled: **6/10/2020 12:48**

Analytical Method: 8082A **Prep Batch(es):** L496882 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	100	06/17/20 16:59	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	100	06/17/20 16:59	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	100	06/17/20 16:59	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	100	06/17/20 16:59	VIC	L496917
Aroclor 1248	<1.00	mg/Kg	1.00	100	06/17/20 16:59	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	100	06/17/20 16:59	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	100	06/17/20 16:59	VIC	L496917
Surrogate: Decachlorobiphenyl	55.1		Limits: 25-125%	100	06/17/20 16:59	VIC	L496917
Surrogate: Tetrachloro-m-xylene	118		Limits: 25-125%	100	06/17/20 16:59	VIC	L496917

**Qualifiers/
Definitions**

DF Dilution Factor
Q RPD >40% dual column results
MQL Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/18/2020

Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0052**

REPORT OF ANALYSIS

Lab No : **92647**

Matrix: **Solids**

Sample ID : **ED-DU11_02 - Secondary - Composite**

Sampled: **6/10/2020 12:58**

Analytical Method: 8082A

Prep Batch(es): L496882 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	100	06/17/20 17:21	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	100	06/17/20 17:21	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	100	06/17/20 17:21	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	100	06/17/20 17:21	VIC	L496917
Aroclor 1248	<1.00	mg/Kg	1.00	100	06/17/20 17:21	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	100	06/17/20 17:21	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	100	06/17/20 17:21	VIC	L496917
Surrogate: Decachlorobiphenyl	26.8		Limits: 25-125%	100	06/17/20 17:21	VIC	L496917
Surrogate: Tetrachloro-m-xylene	120		Limits: 25-125%	100	06/17/20 17:21	VIC	L496917

**Qualifiers/
Definitions**

DF Dilution Factor
Q RPD >40% dual column results
MQL Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/18/2020
Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0052**

REPORT OF ANALYSIS

Lab No : **92672**

Matrix: **Solids**

Sample ID : **ED-DU11_02 - Tertiary - Composite**

Sampled: **6/10/2020 13:03**

Analytical Method: 8082A

Prep Batch(es): **L496882** 06/16/20 16:03

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/17/20 18:57	VIC	L496917
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/17/20 18:57	VIC	L496917
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/17/20 18:57	VIC	L496917
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/17/20 18:57	VIC	L496917
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/17/20 18:57	VIC	L496917
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/17/20 18:57	VIC	L496917
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/17/20 18:57	VIC	L496917
Surrogate: Decachlorobiphenyl	108		Limits: 25-125%	10	06/17/20 18:57	VIC	L496917
Surrogate: Tetrachloro-m-xylene	96.8		Limits: 25-125%	10	06/17/20 18:57	VIC	L496917

**Qualifiers/
Definitions**

DF Dilution Factor
Q RPD >40% dual column results
MQL Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/18/2020
Received : 06/11/2020



Andrea R. Brownfield
Project manager

Report Number : **20-163-0052**

REPORT OF ANALYSIS

Lab No : **92697**

Matrix: **Aqueous**

Sample ID : **ED-DU11_02 - EB**

Sampled: **6/10/2020 13:48**

Analytical Method: 8082A

Prep Batch(es): L496174 06/12/20 14:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/15/20 22:22	VIC	L496620
Aroclor 1221	<0.50	µg/L	0.50	1	06/15/20 22:22	VIC	L496620
Aroclor 1232	<0.50	µg/L	0.50	1	06/15/20 22:22	VIC	L496620
Aroclor 1242	<0.50	µg/L	0.50	1	06/15/20 22:22	VIC	L496620
Aroclor 1248	<0.50	µg/L	0.50	1	06/15/20 22:22	VIC	L496620
Aroclor 1254	<0.50	µg/L	0.50	1	06/15/20 22:22	VIC	L496620
Aroclor 1260	<0.50	µg/L	0.50	1	06/15/20 22:22	VIC	L496620
Surrogate: Decachlorobiphenyl	72.8		Limits: 36-116%	1	06/15/20 22:22	VIC	L496620
Surrogate: Tetrachloro-m-xylene	77.5		Limits: 25-123%	1	06/15/20 22:22	VIC	L496620

**Qualifiers/
Definitions**

DF Dilution Factor
Q RPD >40% dual column results
MQL Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-163-0052

QC Prep: L496174 **QC Analytical Batch(es):** L496620
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496174 Matrix: AQU
Associated Lab Samples: 92697

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1221	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1232	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1242	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1248	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1254	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1260	µg/L	< 0.200	0.200	06/15/20 16:05		
Decachlorobiphenyl (S)				06/15/20 16:05	22.3	36-116
Tetrachloro-m-xylene (S)				06/15/20 16:05	33.1	25-123

Laboratory Control Sample & LCSD LCS-L496174 LCSD-L496174

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.40	2.23	68.0	44.6	44-116	41.5*	20.0
Aroclor 1260	µg/L	5.00	3.51	1.80	70.2	36.0*	43-129	64.4*	20.0
Decachlorobiphenyl (S)					23.8*	22.8*	36-116		
Tetrachloro-m-xylene (S)					45.8	36.6	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-163-0052

QC Prep: L496882 **QC Analytical Batch(es):** L496917
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496882 Matrix: SOL
 Associated Lab Samples: 92622, 92647, 92672

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/17/20 12:19		
Decachlorobiphenyl (S)				06/17/20 12:19	105	25-125
Tetrachloro-m-xylene (S)				06/17/20 12:19	66.5	25-125

Laboratory Control Sample LCS-L496882

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.163	97.6	50-125
Aroclor 1260	mg/Kg	0.167	0.207	124	50-125
Decachlorobiphenyl (S)				104	25-125
Tetrachloro-m-xylene (S)				76.5	25-125

Matrix Spike & Matrix Spike Duplicate L 92447-MS-L496882 L 92447-MSD-L496882

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.102	0.104	8.39	8.83	8230*	8490*	40-140	5.1	30
Aroclor 1260	mg/Kg	<0.0667	0.102	0.104	1.03	1.11	1010*	1070*	40-140	7.4	30
Decachlorobiphenyl (S)							40.0	31.7	25-125		
Tetrachloro-m-xylene (S)							110	123	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-163-0052**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #101

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0052
 25226
 06-11-2020
 13:03:02

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU11	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # ARCONIC - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1248	ED-DU11_02-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	received on: Cooler(s)/Container(s)	
Blank/Cooler Temp 1.1°C T101 2.7°C TP			Relinquished by: (SIGNATURE)		6/10	1800	Received by: (SIGNATURE)	
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)	
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)	

Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0052
 25226
 06-11-2020
 13:03:02
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU11	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1303	ED-DU11_02-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-04S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1248	ED-DU11_02-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/Cooler Temp 1.1°C T101 2.7°C TP	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)		Date	Time
					6/10	1300				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
							J. O'Brien		6/11/20	08:40

Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0052
 25226
 06-11-2020
 13:03:02

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU11	Project Number 171-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1258	ED-DU11_02-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1303	ED-DU11_02-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments	
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/10 1200	Received by: (SIGNATURE)
Blank/Cooler Temp 1.1°C T101 2.7°C TP		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)

Custody Seals received on:
Cooler(s)/Container(s)
6/11/20 08:40



Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0052
 25226
 06-11-2020
 13:03:02

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU11	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcovite - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1248	ED-DU11_02-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1249	ED-DU11_02-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1249	ED-DU11_02-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1258	ED-DU11_02-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s)/Container(s)			
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Jenny O'Brien	6/10 1800				
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
1.1°C T101 2.7°C TP						6/11/20	08:40	



Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0052
 25226
 06-11-2020
 13:03:02

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU11	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
6/10	1303	ED-DU11_02-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1248	ED-DU11_02-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1258	ED-DU11_02-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1303	ED-DU11_02-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1248	ED-DU11_02-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1258	ED-DU11_02-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1303	ED-DU11_02-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	↓	1248	ED-DU11_02-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien	Custody Seals received on:				
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/10	1800			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.1°C T101								
2.7°C (TP)								

(Signature) 6/11/20
 08:40



Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0052
 25226
 06-11-2020
 13:03:02

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU11	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1258	ED-DU11_02-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1303	ED-DU11_02-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien						received on:	
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/10	1800				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
1.1°C T101 2.7°C T1P							[Signature]		6/11/20	08:40



Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0052
 25226
 06-11-2020
 13:03:02

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU11	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1248	ED-DU11_02-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1258	ED-DU11_02-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on:					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/10	1800				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
1.1°C T101							J. Phillip		6/11/20	
2.7°C TP									08:40	



Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0052
 25226
 06-11-2020
 13:03:02

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU11	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1303	ED-DU11_02-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien						received on:	
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Cooler(s)/Container(s)	
			Jenny O'Brien		6/10	1300				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)		Date Time	
							Received by: (SIGNATURE)		Date Time	
							Received by: (SIGNATURE)		Date Time	

Blank/Cooler Temp
 1.1°C T101
 2.7°C TP

Received by: [Signature]
 Date: 6/11/20
 Time: 08:40



Kit ID: 139150
Initiated By: Andrea Brownfield
Initiated Date: 6/5/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-163-0052
 25226
 06-11-2020
 13:03:02

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU11	Project Number 172-307	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/10	1258	ED-DU11_02-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1248	ED-DU11_02-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1258	ED-DU11_02-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1303	ED-DU11_02-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments received on: Cooler(s)/Container(s)				
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/10	Time 1300	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp 1.1°C T101 2.7°C (TD)			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)		Date 6/11/20	Time 08:40



Kit ID:	139150
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-163-0052
 25226
 06-11-2020
 13:03:02
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226		Client Project Manager/Contact Civil & Environmental Consultants, Inc.			Purchase Order Number		
Site Name DU11		Project Number 172-367		<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com			Site/Facility ID # Arconic - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
6/10	1348	ED-DU11_02-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs	

Custody Seals
received on:
Cooler(s)/Container(s)

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice <input checked="" type="checkbox"/> Y/N	Custody Seals <input checked="" type="checkbox"/> Y/N	Lab Comments	Jenny O'Brien							
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/10	1800				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp 1.1°C T101 27°C T10						Received by: (SIGNATURE) [Signature]		Date 6/11/20	Time 08:40	



6/22/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-164-0005
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/12/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-164-0005
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
93059	ED-DU10_02 - Primary - Composite	Solids	06/11/2020 11:00	06/12/2020
93084	ED-DU10_02 - Secondary - Composite	Solids	06/11/2020 11:10	06/12/2020
93109	ED-DU10_02 - Tertiary - Composite	Solids	06/11/2020 11:13	06/12/2020
93134	ED-DU10_02 - EB	Aqueous	06/11/2020 12:06	06/12/2020



Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-164-0005
Date: 6/19/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 93109 (ED-DU10_02 - Tertiary - Composite)

QC Batch No: L497361

Surrogate(s) flagged for recovery outside QC limits in this project sample due to a required dilution. The dilution factor resulted in surrogate concentration(s) below the minimum detectable level. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Analyte: Aroclor 1248

QC Batch No: L497361/L497155

Analyte was detected in both the primary and confirmatory analyses, with a relative percent difference (RPD) of greater than 40% between the two results. These results are flagged Q and the lower of the two values is reported. Analytes with RPD values greater than 100% are reported as non-detect.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 06/22/2020
Received : 06/12/2020



Report Number : **20-164-0005**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **93084**

Matrix: **Solids**

Sample ID : **ED-DU10_02 - Secondary - Composite**

Sampled: **6/11/2020 11:10**

Analytical Method: 8082A

Prep Batch(es): **L497155** 06/18/20 17:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/19/20 15:28	VIC	L497361
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/19/20 15:28	VIC	L497361
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/19/20 15:28	VIC	L497361
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/19/20 15:28	VIC	L497361
Aroclor 1248	2.37	mg/Kg	1.00	10	06/19/20 15:28	VIC	L497361
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/19/20 15:28	VIC	L497361
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/19/20 15:28	VIC	L497361
Surrogate: Decachlorobiphenyl	122		Limits: 25-125%	10	06/19/20 15:28		L497361
Surrogate: Tetrachloro-m-xylene	96.0		Limits: 25-125%	10	06/19/20 15:28		L497361

**Qualifiers/
Definitions**

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	MQL	Method Quantitation Limit
Q	RPD >40% dual column results		

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/22/2020

Received : 06/12/2020



Andrea R. Brownfield
Project manager

Report Number : **20-164-0005**

REPORT OF ANALYSIS

Lab No : **93109**

Matrix: **Solids**

Sample ID : **ED-DU10_02 - Tertiary - Composite**

Sampled: **6/11/2020 11:13**

Analytical Method: 8082A **Prep Batch(es):** **L497155** 06/18/20 17:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	100	06/19/20 16:11	VIC	L497361
Aroclor 1221	<1.00	mg/Kg	1.00	100	06/19/20 16:11	VIC	L497361
Aroclor 1232	<1.00	mg/Kg	1.00	100	06/19/20 16:11	VIC	L497361
Aroclor 1242	<1.00	mg/Kg	1.00	100	06/19/20 16:11	VIC	L497361
Aroclor 1248	4.75 Q	mg/Kg	1.00	100	06/19/20 16:11	VIC	L497361
Aroclor 1254	<1.00	mg/Kg	1.00	100	06/19/20 16:11	VIC	L497361
Aroclor 1260	<1.00	mg/Kg	1.00	100	06/19/20 16:11	VIC	L497361
Surrogate: Decachlorobiphenyl		I *	Limits: 25-125%	100	06/19/20 16:11		L497361
Surrogate: Tetrachloro-m-xylene		I *	Limits: 25-125%	100	06/19/20 16:11		L497361

Qualifiers/Definitions	*	Outside QC Limit	DF	Dilution Factor
	I	Recovery out of range	MQL	Method Quantitation Limit
	Q	RPD >40% dual column results		

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/22/2020

Received : 06/12/2020



Andrea R. Brownfield
Project manager

Report Number : **20-164-0005**

REPORT OF ANALYSIS

Lab No : **93134**

Matrix: **Aqueous**

Sample ID : **ED-DU10_02 - EB**

Sampled: **6/11/2020 12:06**

Analytical Method: 8082A **Prep Batch(es):** L496174 06/12/20 14:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/15/20 22:44	VIC	L496620
Aroclor 1221	<0.50	µg/L	0.50	1	06/15/20 22:44	VIC	L496620
Aroclor 1232	<0.50	µg/L	0.50	1	06/15/20 22:44	VIC	L496620
Aroclor 1242	<0.50	µg/L	0.50	1	06/15/20 22:44	VIC	L496620
Aroclor 1248	<0.50	µg/L	0.50	1	06/15/20 22:44	VIC	L496620
Aroclor 1254	<0.50	µg/L	0.50	1	06/15/20 22:44	VIC	L496620
Aroclor 1260	<0.50	µg/L	0.50	1	06/15/20 22:44	VIC	L496620
Surrogate: Decachlorobiphenyl	64.7		Limits: 36-116%	1	06/15/20 22:44	VIC	L496620
Surrogate: Tetrachloro-m-xylene	77.5		Limits: 25-123%	1	06/15/20 22:44	VIC	L496620

Qualifiers/Definitions			DF	Dilution Factor
*	Outside QC Limit		MQL	Method Quantitation Limit
I	Recovery out of range			
Q	RPD >40% dual column results			

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-164-0005

QC Prep: L496174 **QC Analytical Batch(es):** L496620
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L496174 Matrix: AQU
 Associated Lab Samples: 93134

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1221	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1232	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1242	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1248	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1254	µg/L	< 0.200	0.200	06/15/20 16:05		
Aroclor 1260	µg/L	< 0.200	0.200	06/15/20 16:05		
Decachlorobiphenyl (S)				06/15/20 16:05	22.3	36-116
Tetrachloro-m-xylene (S)				06/15/20 16:05	33.1	25-123

Laboratory Control Sample & LCSD LCS-L496174 LCSD-L496174

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.40	2.23	68.0	44.6	44-116	41.5*	20.0
Aroclor 1260	µg/L	5.00	3.51	1.80	70.2	36.0*	43-129	64.4*	20.0
Decachlorobiphenyl (S)					23.8*	22.8*	36-116		
Tetrachloro-m-xylene (S)					45.8	36.6	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-164-0005

QC Prep: L497155 **QC Analytical Batch(es):** L497361
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497155 Matrix: SOL
 Associated Lab Samples: 93059, 93084, 93109

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/19/20 12:55		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/19/20 12:55		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/19/20 12:55		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/19/20 12:55		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/19/20 12:55		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/19/20 12:55		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/19/20 12:55		
Decachlorobiphenyl (S)				06/19/20 12:55	83.0	25-125
Tetrachloro-m-xylene (S)				06/19/20 12:55	70.0	25-125

Laboratory Control Sample LCS-L497155

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.188	113	50-125
Aroclor 1260	mg/Kg	0.167	0.202	121	50-125
Decachlorobiphenyl (S)				103	25-125
Tetrachloro-m-xylene (S)				91.5	25-125

Matrix Spike & Matrix Spike Duplicate L 93109-MS-L497155 L 93109-MSD-L497155

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.667	0.0900	0.0849	14.3	14.2	15900*	16700*	40-140	0.7	30
Aroclor 1260	mg/Kg	<0.667	0.0900	0.0849	1.72	2.00	1910*	2360*	40-140	15.0	30
Decachlorobiphenyl (S)							66.6	190*	25-125		
Tetrachloro-m-xylene (S)							93.5	66.5	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-164-0005**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #100

Shipping container/cooler uncompromised? Yes No

Number of coolers/boxes received

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of Custody (COC) present? Yes No

COC agrees with sample label(s)? Yes No

COC properly completed Yes No

Samples in proper containers? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test(s)? Yes No

All samples received within holding time? Yes No

Cooler temperature in compliance? Yes No

Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun. Yes No

Water - Sample containers properly preserved Yes No N/A

Water - VOA vials free of headspace Yes No N/A

Trip Blanks received with VOAs Yes No N/A

Soil VOA method 5035 – compliance criteria met Yes No N/A

High concentration container (48 hr) Low concentration EnCore samplers (48 hr)
 High concentration pre-weighed (methanol -14 d) Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included? Yes No

Comments:

Signature:

Date & Time:



CHAIN-OF-CUSTODY

Kit ID:	139156
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-164-0005
 25226
 06-12-2020
 10:15:53
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1100	ED-DU10_02-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
Y/N	Y/N	Custody Seals received on: Cooler(s) / Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/11	1730				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp										
0.75 @ 7:00 1.4 0.7									6/11/20 9:00	



Kit ID:	139156
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-164-0005
 25226
 06-12-2020
 10:15:53

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1113	ED-DU10_02-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-40S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
O/N	Y/N	Cooler(s)/Container(s) Received on: Custody Seals	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/11	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/ Cooler Temp										
1.4 T100 0.7 YAT										

[Handwritten signature] 6/11/20 900



Kit ID:	139156
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-164-0005
 25226
 06-12-2020
 10:15:53
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU10_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Aroanic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1110	ED-DU10_02-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1113	ED-DU10_02-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments Cooler(s) received on: Custody Seals Containers(s)	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/11	Time 1730	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 1.4 °T/100 0.7 °C/KAT			[Signature] 6/11/20 900					



Kit ID: 139156
Initiated By: Andrea Brownfield
Initiated Date: 6/5/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-164-0005
 25226
 06-12-2020
 10:15:53
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU10_02	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1100	ED-DU10_02-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments				
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/ Cooler Temp 1.4 eT/100 0.7 c XAT		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time

Coolest(s) received on: Custody Seals

6/11/20
900

Kit ID: 139156
Initiated By: Andrea Brownfield
Initiated Date: 6/5/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

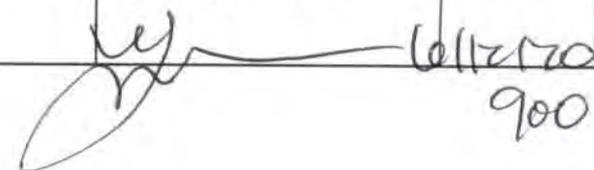


20-164-0005
 25226
 06-12-2020
 10:15:53
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU10_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # ARCONIC- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1113	ED-DU10_02-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1100	ED-DU10_02-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE) Jenny O'Brien	Date	Time	Received by: (SIGNATURE)	Date	Time
(Y/N)	(Y/N)			6/11	1730			
Blank/Cooler Temp 1.4 °C T/100 0.7 °C MAT			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time


 900



Kit ID:	139156
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-164-0005
 25226
 06-12-2020
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Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU10_02	Project Number 172 367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1110	ED-DU10_02-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1113	ED-DU10_02-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien					
Y/N	Y/N	Cooler(s) received on: Custody Seals received on: Containers(s)	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Jenny O'Brien	6/11 1730				
Blank Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
1.4 ec T100							6/12/20 900	



Kit ID:	139156
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-164-0005
 25226
 06-12-2020
 10:15:53

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1100	ED-DU10_02-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien					
(Y/N)	(Y/N)	(Cooler(s)/Containers) Custody Seals Received on:	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/11	1730			
Blank / Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.4 °C T100 0.7 °C NAT								



Kit ID:	139156
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-164-0005
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 06-12-2020
 10:15:53

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU10_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1113	ED-DU10_02-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1100	ED-DU10_02-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jimmy O'Brien					
(Y/N)	(Y/N)	Cooler(s)/Container(s) Custody Seals Received on:	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jimmy O'Brien	6/11	1730			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp								
1.4 °C 0.7 °C								

[Handwritten signature] 6/11/20
900



Kit ID: 139156
Initiated By: Andrea Brownfield
Initiated Date: 6/5/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-164-0005
 25226
 06-12-2020
 10:15:53
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU10_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Atconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/11	1110	ED-DU10_02-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1100	ED-DU10_02-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1110	ED-DU10_02-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1113	ED-DU10_02-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/11 1730	Received by: (SIGNATURE)	Date Time		
Blank/Cooler Temp 1.4 °C 7100 0.7 °C XAT			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		

Custody Seals received on:
 Cooler(s)/Container(s)

6/11/20
 900



Kit ID:	139156
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-164-0005
 25226
 06-12-2020
 10:15:53

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226		Client Project Manager/Contact Civil & Environmental Consultants, Inc.			Purchase Order Number		
Site Name DU10_02		Project Number 172-307		<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com			Site/Facility ID # Arconic - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
6/11	1200	ED-DU10_02-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs	

* A sample jar from ~~ED-DU10_02-EB~~ ^{DU02-10T} was broken in transit. A replacement sample is included

Date	Time	Sample ID	# of cont	Analyses
4/11	1515	ED-DU02-10T Replacement	1	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Cooler(s)/Containers(s) Received on: Custody Seals	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/11	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp										
1.4 °C T100 0.7 °C VAT										

[Handwritten signature]
 Cell 212-170-900



6/22/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-167-0049
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/13/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-167-0049
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
93694	ED-DU09_02 - Primary - Composite	Solids	06/12/2020	06/13/2020
93721	ED-DU09_02 - Secondary - Composite	Solids	06/12/2020	06/13/2020
93748	ED-DU09_02 - Tertiary - Composite	Solids	06/12/2020	06/13/2020
93775	ED-DU09_02 - EB	Aqueous	06/12/2020 10:20	06/13/2020
93776	ED-DU09_02 - Secondary - Duplicate	Solids	06/12/2020 08:25	06/13/2020



Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-167-0049
Date: 6/22/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 93775 (ED-DU09_02 - EB)

Analyte: Decachlorobiphenyl

QC Batch No: L497535/L497075

Surrogate(s) were flagged for recoveries in the associated project sample. During the extraction step, the extraction technician noted that a significant emulsion formed. Batch QC samples (Method Blank and Laboratory Control Samples) all showed surrogate recoveries within QC limits, indicating that the biased recoveries were due to the sample matrix.

Sample 93721 (ED-DU09_02 - Secondary - Composite)

Analyte: Decachlorobiphenyl

QC Batch No: L497587/L497389

Surrogate(s) flagged for recovery outside QC limits in this project sample due to a required dilution. The dilution factor resulted in surrogate concentration(s) below the minimum detectable level. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

Sample 93748 (ED-DU09_02 - Tertiary - Composite)

Analyte: Decachlorobiphenyl

QC Batch No: L497587/L497389

Surrogate(s) flagged for recovery outside QC limits in this project sample due to a required dilution. The dilution factor resulted in surrogate concentration(s) below the minimum detectable level. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 06/22/2020
Received : 06/13/2020



Report Number : **20-167-0049**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **93694**

Matrix: **Solids**

Sample ID : **ED-DU09_02 - Primary - Composite**

Sampled: **6/12/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L497389** 06/21/20 16:45

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/22/20 11:04	VIC	L497587
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/22/20 11:04	VIC	L497587
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/22/20 11:04	VIC	L497587
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/22/20 11:04	VIC	L497587
Aroclor 1248	1.02	mg/Kg	1.00	10	06/22/20 11:04	VIC	L497587
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/22/20 11:04	VIC	L497587
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/22/20 11:04	VIC	L497587
Surrogate: Decachlorobiphenyl	98.2		Limits: 25-125%	10	06/22/20 11:04	VIC	L497587
Surrogate: Tetrachloro-m-xylene	99.1		Limits: 25-125%	10	06/22/20 11:04	VIC	L497587

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

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Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 06/22/2020
Received : 06/13/2020



Report Number : **20-167-0049**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **93721**

Matrix: **Solids**

Sample ID : **ED-DU09_02 - Secondary - Composite**

Sampled: **6/12/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L497389** 06/21/20 16:45

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/22/20 11:26	VIC	L497587
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/22/20 11:26	VIC	L497587
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/22/20 11:26	VIC	L497587
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/22/20 11:26	VIC	L497587
Aroclor 1248	1.23	mg/Kg	1.00	10	06/22/20 11:26	VIC	L497587
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/22/20 11:26	VIC	L497587
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/22/20 11:26	VIC	L497587
Surrogate: Decachlorobiphenyl	173 *		Limits: 25-125%	10	06/22/20 11:26	VIC	L497587
Surrogate: Tetrachloro-m-xylene	104		Limits: 25-125%	10	06/22/20 11:26	VIC	L497587

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

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Ms. Jenny Rickford O'Brien
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Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/22/2020
Received : 06/13/2020



Andrea R. Brownfield
Project manager

Report Number : **20-167-0049**

REPORT OF ANALYSIS

Lab No : **93748**

Matrix: **Solids**

Sample ID : **ED-DU09_02 - Tertiary - Composite**

Sampled: **6/12/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L497389** 06/21/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/22/20 11:47	VIC	L497587
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/22/20 11:47	VIC	L497587
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/22/20 11:47	VIC	L497587
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/22/20 11:47	VIC	L497587
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/22/20 11:47	VIC	L497587
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/22/20 11:47	VIC	L497587
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/22/20 11:47	VIC	L497587
Surrogate: Decachlorobiphenyl	137 *		Limits: 25-125%	10	06/22/20 11:47	VIC	L497587
Surrogate: Tetrachloro-m-xylene	105		Limits: 25-125%	10	06/22/20 11:47	VIC	L497587

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 06/22/2020
Received : 06/13/2020



Andrea R. Brownfield
Project manager

Report Number : **20-167-0049**

REPORT OF ANALYSIS

Lab No : **93775**

Matrix: **Aqueous**

Sample ID : **ED-DU09_02 - EB**

Sampled: **6/12/2020 10:20**

Analytical Method: 8082A

Prep Batch(es): **L497075** 06/18/20 11:30

Prep Method: 3510C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/20/20 17:56	VIC	L497535
Aroclor 1221	<0.50	µg/L	0.50	1	06/20/20 17:56	VIC	L497535
Aroclor 1232	<0.50	µg/L	0.50	1	06/20/20 17:56	VIC	L497535
Aroclor 1242	<0.50	µg/L	0.50	1	06/20/20 17:56	VIC	L497535
Aroclor 1248	<0.50	µg/L	0.50	1	06/20/20 17:56	VIC	L497535
Aroclor 1254	<0.50	µg/L	0.50	1	06/20/20 17:56	VIC	L497535
Aroclor 1260	<0.50	µg/L	0.50	1	06/20/20 17:56	VIC	L497535
Surrogate: Decachlorobiphenyl	23.4 *		Limits: 36-116%	1	06/20/20 17:56	VIC	L497535
Surrogate: Tetrachloro-m-xylene	66.8		Limits: 25-123%	1	06/20/20 17:56	VIC	L497535

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/22/2020
Received : 06/13/2020



Andrea R. Brownfield
Project manager

Report Number : **20-167-0049**

REPORT OF ANALYSIS

Lab No : **93776**

Matrix: **Solids**

Sample ID : **ED-DU09_02 - Secondary - Duplicate**

Sampled: **6/12/2020 8:25**

Analytical Method: 8082A

Prep Batch(es): **L497389** 06/21/20 16:45

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/22/20 12:09	VIC	L497587
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/22/20 12:09	VIC	L497587
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/22/20 12:09	VIC	L497587
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/22/20 12:09	VIC	L497587
Aroclor 1248	1.43	mg/Kg	1.00	10	06/22/20 12:09	VIC	L497587
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/22/20 12:09	VIC	L497587
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/22/20 12:09	VIC	L497587
Surrogate: Decachlorobiphenyl	103		Limits: 25-125%	10	06/22/20 12:09	VIC	L497587
Surrogate: Tetrachloro-m-xylene	96.2		Limits: 25-125%	10	06/22/20 12:09	VIC	L497587

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-167-0049

QC Prep: L497075 **QC Analytical Batch(es):** L497535
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497075 Matrix: AQU
Associated Lab Samples: 93775

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1221	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1232	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1242	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1248	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1254	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1260	µg/L	< 0.200	0.200	06/20/20 15:45		
Decachlorobiphenyl (S)				06/20/20 15:45	90.3	36-116
Tetrachloro-m-xylene (S)				06/20/20 15:45	77.5	25-123

Laboratory Control Sample & LCSD LCS-L497075 LCSD-L497075

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	4.58	5.16	91.6	103	44-116	11.9	20.0
Aroclor 1260	µg/L	5.00	5.10	5.52	102	110	43-129	7.9	20.0
Decachlorobiphenyl (S)					88.5	91.6	36-116		
Tetrachloro-m-xylene (S)					69.8	80.5	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-167-0049

QC Prep: L497389 **QC Analytical Batch(es):** L497587
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497389 Matrix: SOL
 Associated Lab Samples: 93694, 93721, 93748, 93776

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/22/20 10:19		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/22/20 10:19		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/22/20 10:19		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/22/20 10:19		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/22/20 10:19		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/22/20 10:19		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/22/20 10:19		
Decachlorobiphenyl (S)				06/22/20 10:19	75.5	25-125
Tetrachloro-m-xylene (S)				06/22/20 10:19	78.0	25-125

Laboratory Control Sample LCS-L497389

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.148	88.6	50-125
Aroclor 1260	mg/Kg	0.167	0.168	101	50-125
Decachlorobiphenyl (S)				82.0	25-125
Tetrachloro-m-xylene (S)				75.0	25-125

Matrix Spike & Matrix Spike Duplicate L 93694-MS-L497389 L 93694-MSD-L497389

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.103	0.0915	2.68	2.81	2600*	3070*	40-140	4.7	30
Aroclor 1260	mg/Kg	<0.0667	0.103	0.0915	0.261	0.294	253*	321*	40-140	11.8	30
Decachlorobiphenyl (S)							87.8	132*	25-125		
Tetrachloro-m-xylene (S)							91.0	110	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-167-0049**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



CHAIN-OF-CUSTODY

Kit ID:	139157
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-167-0049
 25226
 06-15-2020
 11:03:49
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Aroanic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0810	ED-DU09_02-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments Waypoint to generate field duplicate sample from ED-DU09-02 - Secondary for PCB analysis				
Ice 2y/N	Custody Seals 2y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/12	Time 1700	Received by: (SIGNATURE)	Date 6/13/20	Time 0900
Lab Comments		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 1.5°C EQ 3.9°C T99		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time



CHAIN-OF-CUSTODY

Kit ID:	139157
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-167-0049
 25226
 06-15-2020
 11:03:49
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0830	ED-DU09_02-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-04S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0810	ED-DU09_02-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments See page 1			
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date	Time	Received by: (SIGNATURE)	Date Time
			6/12	1700		
Blank/Cooler Temp 15°C T99 3.9°C CQ		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
						6/13/20 0900



Kit ID:	139157
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-167-0049
 25226
 06-15-2020
 11:03:49
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0825	ED-DU09_02-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0830	ED-DU09_02-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/12	1700				
			Relinquished by: (SIGNATURE)							
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
1.5°C T99 3.9°C CQ							[Signature]		6/13/20	0900



Kit ID: 139157
Initiated By: Andrea Brownfield
Initiated Date: 6/5/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-167-0049
 25226
 06-15-2020
 11:03:49
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input checked="" type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0810	ED-DU09_02-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0825	ED-DU09_02-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/12	Time 1700	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date 6/13/20	Time 0900
Blank/Cooler Temp 1.5°C T99 3.9°C O2								



Kit ID:	139157
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-167-0049
 25226
 06-15-2020
 11:03:49
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0830	ED-DU09_02-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Lab Comments					
Y/N	Y/N		See page 1				
Blank/Cooler Temp 1.5°C T99 3.9°C CQ		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/12	1700			
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
						6/13/20	0900



Kit ID: 139157
Initiated By: Andrea Brownfield
Initiated Date: 6/5/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-167-0049
 25226
 06-15-2020
 11:03:49

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0825	ED-DU09_02-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/12 1700	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)		Date Time	
Blank/ Cooler Temp 15°C T99 3.9°C LQ					Received by: (SIGNATURE) [Signature]		Date Time 6/13/20 0900	



Kit ID:	139157
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-167-0049
 25226
 06-15-2020
 11:03:49

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0810	ED-DU09_02-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1			
D/N	02 JES		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/12	1700			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
15°C T99 3.9°C CQ							6/13/20 0900	

CHAIN-OF-CUSTODY

Kit ID:	139157
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.



20-167-0049
 25226
 06-15-2020
 11:03:49
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0830	ED-DU09_02-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0810	ED-DU09_02-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1			
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time
			Jenny O'Brien		6/12	1700		
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time
							Olave	6/13/20 0900
Blank/Cooler Temp								
15°C TA9								
39°C CQ								

Kit ID:	139157
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-167-0049
 25226
 06-15-2020
 11:03:49
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrnickfordobrien@cecinc.com	Arcenic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0825	ED-DU09_02-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	0830	ED-DU09_02-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1					
C/N	C/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/12	1700				
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
1.5°C T99							[Signature]		6/13/20	0900
3.9°C CA										



Kit ID:	139157
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-167-0049
 25226
 06-15-2020
 11:03:49
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/12	0810	ED-DU09_02-25P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-25S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-25T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU09_02-26P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU09_02-26S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0830	ED-DU09_02-26T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1020	ED-DU09_02-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/12	1700				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
1.5°C T99 3.9°C EQ							[Signature]		6/13/20	0900

10/5/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Revised Lab Report Number: 20-168-9039 (Original Report 20-168-0039)
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/16/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

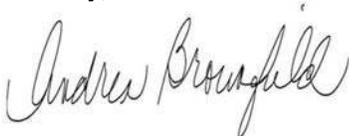
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	06/30/2021
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2021
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2021
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2021
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2021
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2021
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2021
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2021

Sample Summary Table

Report Number: 20-168-9039
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
94065	ED-DU07_02 - Primary - Composite	Solids	06/15/2020 07:55	06/16/2020
94086	ED-DU07_02 - Secondary - Composite	Solids	06/15/2020 08:18	06/16/2020
94107	ED-DU07_02 - Tertiary - Composite	Solids	06/15/2020 08:25	06/16/2020
94128	ED-DU07_02 - EB	Aqueous	06/15/2020 09:50	06/16/2020



Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-168-9039
Date: 10/5/2020

CASE NARRATIVE

This report is revised to make corrections to sample dates.

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 94128 (ED-DU07_02 - EB)

Analyte: Decachlorobiphenyl

QC Batch No: L497535/L497075

Surrogate(s) were flagged for recoveries in the associated project sample. During the extraction step, the extraction technician noted that a significant emulsion formed. Batch QC samples (Method Blank and Laboratory Control Samples) all showed surrogate recoveries within QC limits, indicating that the biased recoveries were due to the sample matrix.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Original Report Date : 06/24/2020
Revised Report Date : 10/05/2020
Received : 06/16/2020

Report Number : **20-168-9039**

REPORT OF ANALYSIS

Lab No : **94128**

Matrix: **Aqueous**

Sample ID : **ED-DU07_02 - EB**

Sampled: **6/15/2020 9:50**

Analytical Method: 8082A

Prep Batch(es): **L497075** 06/18/20 11:30

Prep Method: 3510C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/20/20 18:17	VIC	L497535
Aroclor 1221	<0.50	µg/L	0.50	1	06/20/20 18:17	VIC	L497535
Aroclor 1232	<0.50	µg/L	0.50	1	06/20/20 18:17	VIC	L497535
Aroclor 1242	<0.50	µg/L	0.50	1	06/20/20 18:17	VIC	L497535
Aroclor 1248	<0.50	µg/L	0.50	1	06/20/20 18:17	VIC	L497535
Aroclor 1254	<0.50	µg/L	0.50	1	06/20/20 18:17	VIC	L497535
Aroclor 1260	<0.50	µg/L	0.50	1	06/20/20 18:17	VIC	L497535
Surrogate: Decachlorobiphenyl	28.5 *		Limits: 36-116%	1	06/20/20 18:17	VIC	L497535
Surrogate: Tetrachloro-m-xylene	68.6		Limits: 25-123%	1	06/20/20 18:17	VIC	L497535

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-168-9039

QC Prep: L497075 **QC Analytical Batch(es):** L497535
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497075 Matrix: AQU
Associated Lab Samples: 94128

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1221	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1232	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1242	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1248	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1254	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1260	µg/L	< 0.200	0.200	06/20/20 15:45		
Decachlorobiphenyl (S)				06/20/20 15:45	90.3	36-116
Tetrachloro-m-xylene (S)				06/20/20 15:45	77.5	25-123

Laboratory Control Sample & LCSD LCS-L497075 LCSD-L497075

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	4.58	5.16	91.6	103	44-116	11.9	20.0
Aroclor 1260	µg/L	5.00	5.10	5.52	102	110	43-129	7.9	20.0
Decachlorobiphenyl (S)					88.5	91.6	36-116		
Tetrachloro-m-xylene (S)					69.8	80.5	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-168-9039

QC Prep: L497608 **QC Analytical Batch(es):** L497777
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497608 Matrix: SOL
Associated Lab Samples: 94065, 94086, 94107

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	0.0066	0.0066	06/23/20 12:34		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/23/20 12:34		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/23/20 12:34		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/23/20 12:34		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/23/20 12:34		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/23/20 12:34		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/23/20 12:34		
Decachlorobiphenyl (S)				06/23/20 12:34	97.0	25-125
Tetrachloro-m-xylene (S)				06/23/20 12:34	71.5	25-125

Laboratory Control Sample LCS-L497608

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.142	85.0	50-125
Aroclor 1260	mg/Kg	0.167	0.167	100	50-125
Decachlorobiphenyl (S)				86.5	25-125
Tetrachloro-m-xylene (S)				74.5	25-125

Matrix Spike & Matrix Spike Duplicate L 94065-MS-L497608 L 94065-MSD-L497608

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.117	0.117	1.31	1.23	1120*	1050*	40-140	6.2	30
Aroclor 1260	mg/Kg	<0.0667	0.117	0.117	0.222	0.224	190*	191*	40-140	0.8	30
Decachlorobiphenyl (S)							106	101	25-125		
Tetrachloro-m-xylene (S)							100	92.1	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-168-0039**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID: 139158
Initiated By: Andrea Brownfield
Initiated Date: 6/5/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-168-0039
 25226
 06-16-2020
 10:08:52
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU07_02	Project Number 172-367	Method of Shipment <input checked="" type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other	Method of Shipment
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/15	0755	ED-DU07_02-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0818	ED-DU07_02-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments Waypoint to generate MS/MSD sample from ED-DU07-02 - Primary for PCB analysis				
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/15	Time 1700	Received by: (SIGNATURE)	Date 6/16/20	Time 0840
Blank/Cooler Temp 3.3°C T101 1.4°C TP		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) Lowe	Date	Time



Kit ID:	139158
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-168-0039
 25226
 06-16-2020
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 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU07_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arcenic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/15	0825	ED-DU07_02-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07-_0205P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07-_0205S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1			
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Jenny O'Brien	6/15 1700				
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
3.3°C T19 1.4°C TP						6/16/20 0840		



Kit ID:	139158
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-168-0039
 25226
 06-16-2020
 10:08:52
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Business Address
Site Name DU07_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/5	0818	ED-DU07_02-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1			
Ice (Y/N)	Custody Seals (Y/N)	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/5	Time 1700	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 3.3°C Top 1.4°C P								



Kit ID:	139158
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-168-0039
 25226
 06-16-2020
 10:08:52
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/15	0755	ED-DU07_02-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1			
0/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time
			Jenny O'Brien		6/15	1700		
			Relinquished by: (SIGNATURE)					
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date Time
3.3°C T101 1.4°C TP								6/16/20 0840



Kit ID:	139158
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-168-0039
 25226
 06-16-2020
 10:08:52
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU07_02	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/15	0815	ED-DU07_02-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU07_02-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0810	ED-DU07_02-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments See page 1			
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date	Time	Received by: (SIGNATURE)	Date Time
			6/15	1700		
Blank/Cooler Temp 3.3°C T101 1.4°C TP		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
					[Signature]	6/16/20 0840



Kit ID:	139158
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-168-0039
 25226
 06-16-2020
 10:08:52
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/15	0818	ED-DU07_02-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		See page 1			
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/15	1700			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
3.3°C T101 1.4°C TP							6/16/20 0840	

Kit ID:	139158
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

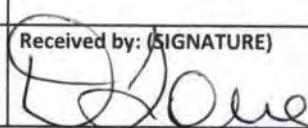
CHAIN-OF-CUSTODY



20-168-0039
 25226
 06-16-2020
 10:08:52
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/15	0755	ED-DU07_02-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU07_02-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0755	ED-DU07_02-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0818	ED-DU07_02-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Jenny O'Brien Relinquished by: (SIGNATURE) Jenny O'Brien Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE)	See page 1			
(Y/N)	(Y/N)		Date	Time	Received by: (SIGNATURE)	Date Time
			6/5	1700		
Blank/Cooler Temp 3.2°C TP 1.4°C T101				Received by: (SIGNATURE) 	Date Time 6/16/20 0840	



Kit ID:	139158
Initiated By:	Andrea Brownfield
Initiated Date:	6/5/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-168-0039
 25226
 06-16-2020
 10:08:52

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226		Client Project Manager/Contact Civil & Environmental Consultants, Inc.			Purchase Order Number		
Site Name DU07_02		Project Number 172-307		<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com			Site/Facility ID # Aroanic- Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
6/15	0825	ED-DU07_02-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs	
	0755	ED-DU07_02-20P	SOL		1	Glass - 4oz	NONE	8082 - PCBs	
	0818	ED-DU07_02-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	0825	ED-DU07_02-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
✓	0950	ED-DU07_02-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs	

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice C/N	Custody Seals Y/N	Lab Comments	Jenny O'Brien		See page 1					
			Relinquished by: (SIGNATURE) <i>Jenny O'Brien</i>		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp 33°C TI01 1.4°C TP			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE) <i>[Signature]</i>		Date	Time
									6/16/20	0840

6/25/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-169-0038
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172.367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/17/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

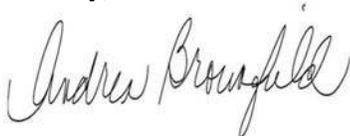
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-169-0038
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172.367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
94523	ED-DU06_02 - Primary - Composite	Solids	06/16/2020 08:00	06/17/2020
94548	ED-DU06_02 - Secondary - Composite	Solids	06/16/2020 08:08	06/17/2020
94573	ED-DU06_02 - Tertiary - Composite	Solids	06/16/2020 08:20	06/17/2020
94598	ED-DU06_02 - EB	Aqueous	06/16/2020 12:40	06/17/2020



Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-169-0038
Date: 6/24/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 94598 (ED-DU06_02 - EB)

Analyte: Decachlorobiphenyl

QC Batch No: L497535/L497075

Surrogate(s) were flagged for recoveries in the associated project sample. During the extraction step, the extraction technician noted that a significant emulsion formed. Batch QC samples (Method Blank and Laboratory Control Samples) all showed surrogate recoveries within QC limits, indicating that the biased recoveries were due to the sample matrix.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172.367

Report Date : 06/25/2020

Received : 06/17/2020



Andrea R. Brownfield
Project manager

Report Number : **20-169-0038**

REPORT OF ANALYSIS

Lab No : **94523**

Matrix: **Solids**

Sample ID : **ED-DU06_02 - Primary - Composite**

Sampled: **6/16/2020 8:00**

Analytical Method: 8082A

Prep Batch(es): **L497833** 06/23/20 16:00

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/24/20 15:20	VIC	L498080
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/24/20 15:20	VIC	L498080
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/24/20 15:20	VIC	L498080
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/24/20 15:20	VIC	L498080
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/24/20 15:20	VIC	L498080
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/24/20 15:20	VIC	L498080
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/24/20 15:20	VIC	L498080
Surrogate: Decachlorobiphenyl	110		Limits: 25-125%	10	06/24/20 15:20		L498080
Surrogate: Tetrachloro-m-xylene	67.3		Limits: 25-125%	10	06/24/20 15:20		L498080

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172.367

Report Date : 06/25/2020
Received : 06/17/2020



Andrea R. Brownfield
Project manager

Report Number : **20-169-0038**

REPORT OF ANALYSIS

Lab No : **94548**

Matrix: **Solids**

Sample ID : **ED-DU06_02 - Secondary - Composite**

Sampled: **6/16/2020 8:08**

Analytical Method: 8082A

Prep Batch(es): **L497833** 06/23/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/24/20 15:42	VIC	L498080
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/24/20 15:42	VIC	L498080
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/24/20 15:42	VIC	L498080
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/24/20 15:42	VIC	L498080
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/24/20 15:42	VIC	L498080
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/24/20 15:42	VIC	L498080
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/24/20 15:42	VIC	L498080
Surrogate: Decachlorobiphenyl	115		Limits: 25-125%	10	06/24/20 15:42		L498080
Surrogate: Tetrachloro-m-xylene	72.4		Limits: 25-125%	10	06/24/20 15:42		L498080

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172.367

Report Date : 06/25/2020

Received : 06/17/2020



Andrea R. Brownfield
Project manager

Report Number : **20-169-0038**

REPORT OF ANALYSIS

Lab No : **94573**

Matrix: **Solids**

Sample ID : **ED-DU06_02 - Tertiary - Composite**

Sampled: **6/16/2020 8:20**

Analytical Method: 8082A **Prep Batch(es):** **L497833** 06/23/20 16:00

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/24/20 16:04	VIC	L498080
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/24/20 16:04	VIC	L498080
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/24/20 16:04	VIC	L498080
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/24/20 16:04	VIC	L498080
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/24/20 16:04	VIC	L498080
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/24/20 16:04	VIC	L498080
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/24/20 16:04	VIC	L498080
Surrogate: Decachlorobiphenyl	97.2		Limits: 25-125%	10	06/24/20 16:04		L498080
Surrogate: Tetrachloro-m-xylene	77.2		Limits: 25-125%	10	06/24/20 16:04		L498080

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172.367

Report Date : 06/25/2020
Received : 06/17/2020



Andrea R. Brownfield
Project manager

Report Number : **20-169-0038**

REPORT OF ANALYSIS

Lab No : **94598**

Matrix: **Aqueous**

Sample ID : **ED-DU06_02 - EB**

Sampled: **6/16/2020 12:40**

Analytical Method: 8082A

Prep Batch(es): **L497075** 06/18/20 11:30

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/20/20 18:39	VIC	L497535
Aroclor 1221	<0.50	µg/L	0.50	1	06/20/20 18:39	VIC	L497535
Aroclor 1232	<0.50	µg/L	0.50	1	06/20/20 18:39	VIC	L497535
Aroclor 1242	<0.50	µg/L	0.50	1	06/20/20 18:39	VIC	L497535
Aroclor 1248	<0.50	µg/L	0.50	1	06/20/20 18:39	VIC	L497535
Aroclor 1254	<0.50	µg/L	0.50	1	06/20/20 18:39	VIC	L497535
Aroclor 1260	<0.50	µg/L	0.50	1	06/20/20 18:39	VIC	L497535
Surrogate: Decachlorobiphenyl	35.4 *		Limits: 36-116%	1	06/20/20 18:39	VIC	L497535
Surrogate: Tetrachloro-m-xylene	66.8		Limits: 25-123%	1	06/20/20 18:39	VIC	L497535

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-169-0038

QC Prep: L497075 **QC Analytical Batch(es):** L497535
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497075 Matrix: AQU
Associated Lab Samples: 94598

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1221	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1232	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1242	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1248	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1254	µg/L	< 0.200	0.200	06/20/20 15:45		
Aroclor 1260	µg/L	< 0.200	0.200	06/20/20 15:45		
Decachlorobiphenyl (S)				06/20/20 15:45	90.3	36-116
Tetrachloro-m-xylene (S)				06/20/20 15:45	77.5	25-123

Laboratory Control Sample & LCSD LCS-L497075 LCSD-L497075

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	4.58	5.16	91.6	103	44-116	11.9	20.0
Aroclor 1260	µg/L	5.00	5.10	5.52	102	110	43-129	7.9	20.0
Decachlorobiphenyl (S)					88.5	91.6	36-116		
Tetrachloro-m-xylene (S)					69.8	80.5	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-169-0038

QC Prep: L497833 **QC Analytical Batch(es):** L498080
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497833 Matrix: SOL
Associated Lab Samples: 94523, 94548, 94573

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Decachlorobiphenyl (S)				06/24/20 14:12	89.0	25-125
Tetrachloro-m-xylene (S)				06/24/20 14:12	71.0	25-125

Laboratory Control Sample LCS-L497833

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.171	102	50-125
Aroclor 1260	mg/Kg	0.167	0.189	113	50-125
Decachlorobiphenyl (S)				95.5	25-125
Tetrachloro-m-xylene (S)				77.0	25-125

Matrix Spike & Matrix Spike Duplicate L 95149-MS-L497833 L 95149-MSD-L497833

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.0968	0.0972	0.885	0.849	914*	873*	40-140	4.1	30
Aroclor 1260	mg/Kg	<0.0667	0.0968	0.0972	0.183	0.163	189*	168*	40-140	11.5	30
Decachlorobiphenyl (S)							125	97.4	25-125		
Tetrachloro-m-xylene (S)							79.2	86.3	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-169-0038**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #102

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-169-0038
 25226
 06-17-2020
 11:00:56
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU06_2	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0800	ED-DU06_2-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0808	ED-DU06_2-03S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments		Custody Seals	
Ice Y/N	Custody Seals Y/N				received on: Cooler(s)/Container(s)	
Lab Comments		Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/16	Time 1730	Received by: (SIGNATURE)	Date 6/17/20
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
Blank/Cooler Temp 2.7°C T102 3.8°C TP		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date 09:00



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-169-0038
 25226
 06-17-2020
 11:00:56

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU06_2	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0820	ED-DU06_2-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments received on: Cooler(s) Container(s)			
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/16	Time 1730	Received by: (SIGNATURE)	Date 6/17/20
Blank/Cooler Temp 2.7°C T102 3.8°C TA		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-169-0038
 25226
 06-17-2020
 11:00:56
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06_2	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrlickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0808	ED-DU06_2-06S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0908	ED-DU06_2-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
G/N	G/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/16 1730					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
2.7°C T102							A. Phillips		6/17/20	
3.8°C (T19)									09:00	



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-169-0038
 25226
 06-17-2020
 11:00:56
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU06_2	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0800	ED-DU06_2-09P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0908	ED-DU06_2-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0920	ED-DU06_2-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0900	ED-DU06_2-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0908	ED-DU06_2-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0920	ED-DU06_2-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien		Date Time 6/16 1730		received on: Cooler(s)/Container(s)	
Blank/Cooler Temp 2.7°C T102 3.8°C TP			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)	



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-169-0038
 25226
 06-17-2020
 11:00:56

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06_2	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arctic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0820	ED-DU06_2-11T	Solids	Ⓞ	1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0803	ED-DU06_2-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0803	ED-DU06_2-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0803	ED-DU06_2-14P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals received on:	
Ice	Custody Seals	Lab Comments	Jenny O'Brien						Cooler(s)/Container(s)	
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/16	1730				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
2.7°C T102							[Signature]		6/17/20	
3.8°C TP										09:00



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-169-0038
 25226
 06-17-2020
 11:00:56
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU06_2	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0808	ED-DU06_2-14S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0920	ED-DU06_2-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments		received on:
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/16	Time 1730	Cooler(s)/Container(s)
Blank/Cooler Temp 2.7°C T102 3.8°C T10		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) [Signature]
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) [Signature]

Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-169-0038
 25226
 06-17-2020
 11:00:56
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU06_2	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0800	ED-DU06_2-17P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0803	ED-DU06_2-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0803	ED-DU06_2-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0803	ED-DU06_2-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals	
Ice	Custody Seals	Jenny O'Brien			received on:	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
		Jenny O'Brien	6/16	1730		
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
2.7°C	TI02					
3.8°C	TD					
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
						6/17/20
						09:00



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-169-0038
 25226
 06-17-2020
 11:00:56
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU06_2	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0820	ED-DU06_2-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0808	ED-DU06_2-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments received on:					
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time		Received by: (SIGNATURE)		Date Time	
			6/16 1730					
Blank/Cooler Temp 2.7°C T102 3.8°C T10		Relinquished by: (SIGNATURE)	Date Time		Received by: (SIGNATURE)		Date Time	
					A. P. [Signature]		6/17/20 09:00	



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-169-0038
 25226
 06-17-2020
 11:00:56
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU06_2	Project Number 172-307	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # #Fronic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/16	0800	ED-DU06_2-22S	Solids	B	1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0803	ED-DU06_2-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0800	ED-DU06_2-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0803	ED-DU06_2-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0820	ED-DU06_2-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien		Date Time 6/16 1730		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp 2.7°C T102 3.8°C T10			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	

Custody Seals

received on:
 Cooler(s)/Container(s)



Kit ID:	139568
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-169-0038
 25226
 06-17-2020
 11:00:56
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226		Client Project Manager/Contact Civil & Environmental Consultants, Inc.			Purchase Order Number		
Site Name DU06_2		Project Number 172-367		<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com			Site/Facility ID # Arconic-Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
6/16	1240	ED-DU06_2-EB	Aqueous		2	Glass Amber - Liter	NONE	8082 - PCBs	

Custody Seals
 received on:
 Cooler(s)/Container(s)

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice (Y/N)	Custody Seals (Y/N)	Lab Comments Blank/Cooler Temp 2.7°C T102 3.8°C T10	Jenny O'Brien							
			Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time

6/25/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-170-0011
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/18/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

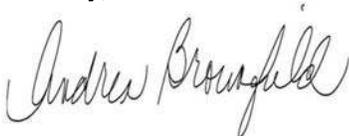
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-170-0011
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
95149	ED-DU05_02 - Primary - Composite	Solids	06/17/2020 07:50	06/18/2020
95174	ED-DU05_02 - Secondary - Composite	Solids	06/17/2020 08:00	06/18/2020
95199	ED-DU05_02 - Tertiary - Composite	Solids	06/17/2020 08:55	06/18/2020
95224	ED-DU05_02 - EB	Aqueous	06/17/2020	06/18/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/25/2020

Received : 06/18/2020



Andrea R. Brownfield
Project manager

Report Number : **20-170-0011**

REPORT OF ANALYSIS

Lab No : **95149**

Matrix: **Solids**

Sample ID : **ED-DU05_02 - Primary - Composite**

Sampled: **6/17/2020 7:50**

Analytical Method: 8082A **Prep Batch(es):** **L497833** 06/23/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/24/20 16:26	VIC	L498080
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/24/20 16:26	VIC	L498080
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/24/20 16:26	VIC	L498080
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/24/20 16:26	VIC	L498080
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/24/20 16:26	VIC	L498080
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/24/20 16:26	VIC	L498080
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/24/20 16:26	VIC	L498080
Surrogate: Decachlorobiphenyl	109		Limits: 25-125%	10	06/24/20 16:26	VIC	L498080
Surrogate: Tetrachloro-m-xylene	92.2		Limits: 25-125%	10	06/24/20 16:26	VIC	L498080

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/25/2020
Received : 06/18/2020



Andrea R. Brownfield
Project manager

Report Number : **20-170-0011**

REPORT OF ANALYSIS

Lab No : **95174**

Matrix: **Solids**

Sample ID : **ED-DU05_02 - Secondary - Composite**

Sampled: **6/17/2020 8:00**

Analytical Method: 8082A

Prep Batch(es): **L497833** 06/23/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/24/20 17:15	VIC	L498080
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/24/20 17:15	VIC	L498080
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/24/20 17:15	VIC	L498080
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/24/20 17:15	VIC	L498080
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/24/20 17:15	VIC	L498080
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/24/20 17:15	VIC	L498080
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/24/20 17:15	VIC	L498080
Surrogate: Decachlorobiphenyl	103		Limits: 25-125%	10	06/24/20 17:15	VIC	L498080
Surrogate: Tetrachloro-m-xylene	79.1		Limits: 25-125%	10	06/24/20 17:15	VIC	L498080

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/25/2020
Received : 06/18/2020



Andrea R. Brownfield
Project manager

Report Number : **20-170-0011**

REPORT OF ANALYSIS

Lab No : **95199**

Matrix: **Solids**

Sample ID : **ED-DU05_02 - Tertiary - Composite**

Sampled: **6/17/2020 8:55**

Analytical Method: 8082A

Prep Batch(es): L497833 06/23/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/24/20 17:37	VIC	L498080
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/24/20 17:37	VIC	L498080
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/24/20 17:37	VIC	L498080
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/24/20 17:37	VIC	L498080
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/24/20 17:37	VIC	L498080
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/24/20 17:37	VIC	L498080
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/24/20 17:37	VIC	L498080
Surrogate: Decachlorobiphenyl	116		Limits: 25-125%	10	06/24/20 17:37	VIC	L498080
Surrogate: Tetrachloro-m-xylene	65.8		Limits: 25-125%	10	06/24/20 17:37	VIC	L498080

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/25/2020

Received : 06/18/2020



Andrea R. Brownfield
Project manager

Report Number : **20-170-0011**

REPORT OF ANALYSIS

Lab No : **95224**

Matrix: **Aqueous**

Sample ID : **ED-DU05_02 - EB**

Sampled: **6/17/2020 0:00**

Analytical Method: 8082A **Prep Batch(es):** L497982 06/24/20 10:30

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/25/20 04:33	VIC	L498367
Aroclor 1221	<0.50	µg/L	0.50	1	06/25/20 04:33	VIC	L498367
Aroclor 1232	<0.50	µg/L	0.50	1	06/25/20 04:33	VIC	L498367
Aroclor 1242	<0.50	µg/L	0.50	1	06/25/20 04:33	VIC	L498367
Aroclor 1248	<0.50	µg/L	0.50	1	06/25/20 04:33	VIC	L498367
Aroclor 1254	<0.50	µg/L	0.50	1	06/25/20 04:33	VIC	L498367
Aroclor 1260	<0.50	µg/L	0.50	1	06/25/20 04:33	VIC	L498367
Surrogate: Decachlorobiphenyl	78.7		Limits: 36-116%	1	06/25/20 04:33	VIC	L498367
Surrogate: Tetrachloro-m-xylene	77.5		Limits: 25-123%	1	06/25/20 04:33	VIC	L498367

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-170-0011

QC Prep: L497833 **QC Analytical Batch(es):** L498080
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497833 Matrix: SOL
 Associated Lab Samples: 95149, 95174, 95199

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/24/20 14:12		
Decachlorobiphenyl (S)				06/24/20 14:12	89.0	25-125
Tetrachloro-m-xylene (S)				06/24/20 14:12	71.0	25-125

Laboratory Control Sample LCS-L497833

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.171	102	50-125
Aroclor 1260	mg/Kg	0.167	0.189	113	50-125
Decachlorobiphenyl (S)				95.5	25-125
Tetrachloro-m-xylene (S)				77.0	25-125

Matrix Spike & Matrix Spike Duplicate L 95149-MS-L497833 L 95149-MSD-L497833

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.0968	0.0972	0.885	0.849	914*	873*	40-140	4.1	30
Aroclor 1260	mg/Kg	<0.0667	0.0968	0.0972	0.183	0.163	189*	168*	40-140	11.5	30
Decachlorobiphenyl (S)							125	97.4	25-125		
Tetrachloro-m-xylene (S)							79.2	86.3	25-125		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-170-0011

QC Prep: L497982 **QC Analytical Batch(es):** L498367
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497982 Matrix: AQU
Associated Lab Samples: 95224

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1221	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1232	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1242	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1248	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1254	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1260	µg/L	< 0.200	0.200	06/24/20 12:44		
Decachlorobiphenyl (S)				06/24/20 12:44	95.6	36-116
Tetrachloro-m-xylene (S)				06/24/20 12:44	95.1	25-123

Laboratory Control Sample & LCSD LCS-L497982 LCSD-L497982

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.42	6.10	108	122*	44-116	11.8	20.0
Aroclor 1260	µg/L	5.00	4.51	5.83	90.2	117	43-129	25.5*	20.0
Decachlorobiphenyl (S)					84.8	79.0	36-116		
Tetrachloro-m-xylene (S)					63.6	68.8	25-123		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-170-0011**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU05_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0750	ED-DU05_02-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
(Y/N)	(Y/N)	Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/17	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.7°C T102 0.4°C TP							L. Love		6/18/20	0805



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrckfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0855	ED-DU05_02-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/17	1730				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.7°C TIQ							[Signature]		6/18/20	0805
0.4°C TP										



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU05_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Atomic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0825	ED-DU05_02-06S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0730	ED-DU05_02-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0730	ED-DU05_02-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0855	ED-DU05_02-08T	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien						
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		6/17	1730			
			Relinquished by: (SIGNATURE)						
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
0.7°C T102								6/18/20	0805
0.4°C TP									



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-170-0011
 25226
 06-18-2020
 10:06:02

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0750	ED-DU05_02-09P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0825	ED-DU05_02-11S	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
W/N	W/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/17	1730				
Blank/ Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.7°C TP2 0.4°C TP							[Signature]		6/18/20	0805



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

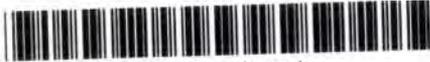
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0855	ED-DU05_02-11T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/17	1730				
			Relinquished by: (SIGNATURE)							
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.7°C T102							[Signature]		6/18/20	0805
0.4°C TP										



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arctic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0825	ED-DU05_02-14S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien					
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/17	1730			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
0.7°C T102 0.4°C TP						Joe	6/18/20	0805



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0750	ED-DU05_02-17P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/17	1730				
			Relinquished by: (SIGNATURE)							
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.7°C T102 0.4°C TP							[Signature]		6/18/20	0805



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU05_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0855	ED-DU05_02-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0730	ED-DU05_02-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0730	ED-DU05_02-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0730	ED-DU05_02-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
ON	ON		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/17	1730				
			Relinquished by: (SIGNATURE)							
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.7°C T102							[Signature]		6/18/20	0805
0.4°C TP										



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU05_02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/17	0825	ED-DU05_02-22S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0855	ED-DU05_02-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0750	ED-DU05_02-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0825	ED-DU05_02-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0855	ED-DU05_02-24T	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/17	1730				
			Relinquished by: (SIGNATURE)							
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.7°C T102							Shane		6/18/20	0825
0.4°C TP										



Kit ID:	139570
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-170-0011
 25226
 06-18-2020
 10:06:02
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226		Client Project Manager/Contact Civil & Environmental Consultants, Inc.			Purchase Order Number		
Site Name DU05_02		Project Number 172-367		<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com			Site/Facility ID # Arconic - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
6/17	1300	ED-DU05_02-EB	Aqueous		2	Glass Amber - Liter	NONE	8082 - PCBs	

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien					
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/17	1730			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/ Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
0.7°C T102							6/18/20	
0.4°C TP							6805	

6/29/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-171-0031
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/19/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

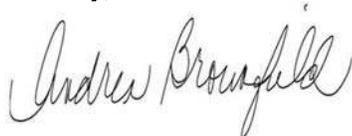
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-171-0031
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
95729	ED-DU04_02-01 - Primary - Composite	Solids	06/18/2020 10:38	06/19/2020
95762	ED-DU04_02-01 - Secondary - Composite	Solids	06/18/2020 10:50	06/19/2020
95795	ED-DU04_02-01 - Tertiary - Composite	Solids	06/18/2020 10:53	06/19/2020



Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-171-0031
Date: 6/26/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 95729 (ED-DU04_02-01 - Primary - Composite)

Analyte: Aroclor 1248

QC Batch No: L498620/L498349

Analyte was detected in both the primary and confirmatory analyses, with a relative percent difference (RPD) of greater than 40% between the two results. These results are flagged Q and the lower of the two values is reported. Analytes with RPD values greater than 100% are reported as non-detect.

Sample 95762 (ED-DU04_02-01 - Secondary - Composite)

Analyte: Aroclor 1248

QC Batch No: L498620/L498349

Analyte was detected in both the primary and confirmatory analyses, with a relative percent difference (RPD) of greater than 40% between the two results. These results are flagged Q and the lower of the two values is reported. Analytes with RPD values greater than 100% are reported as non-detect.

Sample 95795 (ED-DU04_02-01 - Tertiary - Composite)

Analyte: Aroclor 1248

QC Batch No: L498620/L498349

Analyte was detected in both the primary and confirmatory analyses, with a relative percent difference (RPD) of greater than 40% between the two results. These results are flagged Q and the lower of the two values is reported. Analytes with RPD values greater than 100% are reported as non-detect.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/29/2020
Received : 06/19/2020



Andrea R. Brownfield
Project manager

Report Number : **20-171-0031**

REPORT OF ANALYSIS

Lab No : **95729**

Matrix: **Solids**

Sample ID : **ED-DU04_02-01 - Primary - Composite**

Sampled: **6/18/2020 10:38**

Analytical Method: 8082A

Prep Batch(es): **L498349** 06/25/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/26/20 15:07	VIC	L498620
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/26/20 15:07	VIC	L498620
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/26/20 15:07	VIC	L498620
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/26/20 15:07	VIC	L498620
Aroclor 1248	1.05 Q	mg/Kg	1.00	10	06/26/20 15:07	VIC	L498620
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/26/20 15:07	VIC	L498620
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/26/20 15:07	VIC	L498620
Surrogate: Decachlorobiphenyl	52.7		Limits: 25-125%	10	06/26/20 15:07		L498620
Surrogate: Tetrachloro-m-xylene	72.4		Limits: 25-125%	10	06/26/20 15:07		L498620

**Qualifiers/
Definitions**

DF Dilution Factor
Q RPD >40% dual column results
MQL Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/29/2020
Received : 06/19/2020



Andrea R. Brownfield
Project manager

Report Number : **20-171-0031**

REPORT OF ANALYSIS

Lab No : **95762**

Matrix: **Solids**

Sample ID : **ED-DU04_02-01 - Secondary - Composite**

Sampled: **6/18/2020 10:50**

Analytical Method: 8082A

Prep Batch(es): **L498349** 06/25/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/26/20 15:28	VIC	L498620
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/26/20 15:28	VIC	L498620
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/26/20 15:28	VIC	L498620
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/26/20 15:28	VIC	L498620
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/26/20 15:28	VIC	L498620
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/26/20 15:28	VIC	L498620
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/26/20 15:28	VIC	L498620
Surrogate: Decachlorobiphenyl	54.7		Limits: 25-125%	10	06/26/20 15:28		L498620
Surrogate: Tetrachloro-m-xylene	80.6		Limits: 25-125%	10	06/26/20 15:28		L498620

**Qualifiers/
Definitions**

DF
Q

Dilution Factor
RPD >40% dual column results

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 06/29/2020

Received : 06/19/2020



Andrea R. Brownfield
Project manager

Report Number : **20-171-0031**

REPORT OF ANALYSIS

Lab No : **95795**

Matrix: **Solids**

Sample ID : **ED-DU04_02-01 - Tertiary - Composite**

Sampled: **6/18/2020 10:53**

Analytical Method: 8082A **Prep Batch(es):** **L498349** 06/25/20 16:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/26/20 15:50	VIC	L498620
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/26/20 15:50	VIC	L498620
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/26/20 15:50	VIC	L498620
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/26/20 15:50	VIC	L498620
Aroclor 1248	1.56 Q	mg/Kg	1.00	10	06/26/20 15:50	VIC	L498620
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/26/20 15:50	VIC	L498620
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/26/20 15:50	VIC	L498620
Surrogate: Decachlorobiphenyl	62.6		Limits: 25-125%	10	06/26/20 15:50		L498620
Surrogate: Tetrachloro-m-xylene	82.0		Limits: 25-125%	10	06/26/20 15:50		L498620

**Qualifiers/
Definitions**

DF Dilution Factor MQL Method Quantitation Limit
Q RPD >40% dual column results

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-171-0031

QC Prep: L498349 **QC Analytical Batch(es):** L498620
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L498349 Matrix: SOL
Associated Lab Samples: 95729, 95762, 95795

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/26/20 14:24		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/26/20 14:24		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/26/20 14:24		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/26/20 14:24		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/26/20 14:24		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/26/20 14:24		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/26/20 14:24		
Decachlorobiphenyl (S)				06/26/20 14:24	50.0	25-125
Tetrachloro-m-xylene (S)				06/26/20 14:24	80.0	25-125

Laboratory Control Sample LCS-L498349

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.137	82.0	50-125
Aroclor 1260	mg/Kg	0.167	0.0884	52.9	50-125
Decachlorobiphenyl (S)				74.5	25-125
Tetrachloro-m-xylene (S)				89.5	25-125

Matrix Spike & Matrix Spike Duplicate L 95729-MS-L498349 L 95729-MSD-L498349

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.108	0.104	1.68	1.57	1560*	1510*	40-140	6.7	30
Aroclor 1260	mg/Kg	<0.0667	0.108	0.104	0.171	0.153	158*	147*	40-140	11.1	30
Decachlorobiphenyl (S)							71.9	63.2	25-125		
Tetrachloro-m-xylene (S)							80.0	68.3	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-171-0031**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #101

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-171-0031
 25226
 06-19-2020
 09:47:36
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU04_02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1038	ED-DU04_02-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals received on:	
Ice	Custody Seals	Jenny O'Brien			Cooler(s)/Container(s)	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	6/18	1730		
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
2.6 °C T101						
2.1 °C TP						



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

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Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

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 25226
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Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcanic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1053	ED-DU04_02-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	received on:	
Y/N	Y/N		Cooler(s) Container(s)	
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time
2.6°C T101		Jenny O'Brien	6/18	1730
2.1°C TP		Relinquished by: (SIGNATURE)	Date	Time
		Relinquished by: (SIGNATURE)	Date	Time

[Signature] 6/19/20
 09:00



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-171-0031
 25226
 06-19-2020
 09:47:36

Civil & Environmental Consultants, Inc.
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Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1050	ED-DU04_02-06S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/18 1730					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
2.6°C T101							[Signature]		6/19/20	
2.1°C TP									09:00	



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
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20-171-0031
 25226
 06-19-2020
 09:47:36

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU04_02	172-307		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcanic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1030	ED-DU04_02-09P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU04_02-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU04_02-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/18 1730					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
2.6°C T101							H. J. [Signature]		6/19/20	
2.1°C TP									09:00	



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-171-0031
 25226
 06-19-2020
 09:47:36

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1053	ED-DU04_02-11T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/18 1730					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	

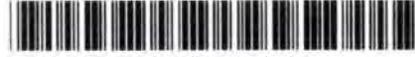
Blank/ Cooler Temp
 2.6°C T101
 2.1°C TP

J. P. O'Brien 6/19/20 09:00



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-171-0031
 25226
 06-19-2020
 09:47:36

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1050	ED-DU04_02-14S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on:					
YN	YN		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/18	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp							6/19/20			
2.6°C T101										
2.1°C TP									09:00	

Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-171-0031
 25226
 06-19-2020
 09:47:36
 Civil & Environmental Consultants, Inc.
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Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1038	ED-DU04_02-17P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on:					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/18	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
2.6°C T101							H. Dineen		6/19/20	
2.1°C TP										09:00



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



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20-171-0031
 25226
 06-19-2020
 09:47:36

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1053	ED-DU04_02-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/18 1730		Cooler(s)/Container(s)			
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp										
2.6°C T101										
2.1°C TP										



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-171-0031
 25226
 06-19-2020
 09:47:36

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1050	ED-DU04_02-22S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)	
(Y/N)	(Y/N)	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Jenny O'Brien	6/18 1730	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)

Blank/Cooler Temp
 2.6°C T101
 2.1°C TP

[Signature]
 6/19/20
 09:00



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-171-0031
 25226
 06-19-2020
 09:47:36
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1038	ED-DU04_02-25P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-25S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-25T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-26P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-26S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-26T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-27P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-27S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s)/Container(s)					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/18	1730				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp										
2.6°C			JHO							
2.1°C			TP							

[Signature] 6/19/20
09:00



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-171-0031
 25226
 06-19-2020
 09:47:36

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1053	ED-DU04_02-27T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-28P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-28S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-28T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-29P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-29S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-29T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-30P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		6/18 1730					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	

Blank/Cooler Temp
 2.6°C T101
 2.1°C TP

A. Phinney 6/19/20
09:00



Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-171-0031
 25226
 06-19-2020
 09:47:36
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1050	ED-DU04_02-30S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1050 1053	ED-DU04_02-30T	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-31P	SOL	↓	1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-31S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-31T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1038	ED-DU04_02-32P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1050	ED-DU04_02-32S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1053	ED-DU04_02-32T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals	
Ice	Custody Seals	Jenny O'Brien			received on:	
(Y/N)	(Y/N)	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
		Jenny O'Brien	6/18	1730		
Blank/ Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
2.6°C	T101					
2.1°C	TP					



6/25/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-171-0032
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/19/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2020
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	05/10/2020
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2020
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020



Sample Summary Table

Report Number: 20-171-0032
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
95839	ED-DU04_02 - EB	Aqueous	06/18/2020 12:45	06/19/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 06/25/2020
Received : 06/19/2020



Andrea R. Brownfield
Project manager

Report Number : **20-171-0032**

REPORT OF ANALYSIS

Lab No : **95839**

Matrix: **Aqueous**

Sample ID : **ED-DU04_02 - EB**

Sampled: **6/18/2020 12:45**

Analytical Method: 8082A

Prep Batch(es): L497982 06/24/20 10:30

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	06/25/20 04:55	VIC	L498367
Aroclor 1221	<0.50	µg/L	0.50	1	06/25/20 04:55	VIC	L498367
Aroclor 1232	<0.50	µg/L	0.50	1	06/25/20 04:55	VIC	L498367
Aroclor 1242	<0.50	µg/L	0.50	1	06/25/20 04:55	VIC	L498367
Aroclor 1248	<0.50	µg/L	0.50	1	06/25/20 04:55	VIC	L498367
Aroclor 1254	<0.50	µg/L	0.50	1	06/25/20 04:55	VIC	L498367
Aroclor 1260	<0.50	µg/L	0.50	1	06/25/20 04:55	VIC	L498367
Surrogate: Decachlorobiphenyl	59.0		Limits: 36-116%	1	06/25/20 04:55	VIC	L498367
Surrogate: Tetrachloro-m-xylene	52.3		Limits: 25-123%	1	06/25/20 04:55	VIC	L498367

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-171-0032

QC Prep: L497982 **QC Analytical Batch(es):** L498367
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L497982 Matrix: AQU
Associated Lab Samples: 95839

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1221	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1232	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1242	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1248	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1254	µg/L	< 0.200	0.200	06/24/20 12:44		
Aroclor 1260	µg/L	< 0.200	0.200	06/24/20 12:44		
Decachlorobiphenyl (S)				06/24/20 12:44	95.6	36-116
Tetrachloro-m-xylene (S)				06/24/20 12:44	95.1	25-123

Laboratory Control Sample & LCSD LCS-L497982 LCSD-L497982

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.42	6.10	108	122*	44-116	11.8	20.0
Aroclor 1260	µg/L	5.00	4.51	5.83	90.2	117	43-129	25.5*	20.0
Decachlorobiphenyl (S)					84.8	79.0	36-116		
Tetrachloro-m-xylene (S)					63.6	68.8	25-123		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-171-0032**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #101

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

Kit ID:	139571
Initiated By:	Andrea Brownfield
Initiated Date:	6/12/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-171-0032
 25226
 06-19-2020
 10:09:42
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.		Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.		Purchase Order Number			
Site Name DU04_02		Project Number 172-307		<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed		Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID CEC Knox - Elliott Ditch		Project Manager Phone # 865-407-8861		Project Manager Email jrickfordobrien@cecinc.com		Site/Facility ID # Arconic - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/18	1245	ED-DU04_02-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals
 received on:
Cooler(s)/Container(s)

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny D'Brien					
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/18	1730			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
2.6°C T101								
2.1°C TP								

J. D. Brownfield 6/19/20
09:00



7/2/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-176-0188
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/24/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-176-0188
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
97620	ED-DU03_02 - Primary - Composite	Solids	06/23/2020 09:57	06/24/2020
97647	ED-DU03_02 - Secondary - Composite	Solids	06/23/2020 09:50	06/24/2020
97674	ED-DU03_02 - Tertiary - Composite	Solids	06/23/2020 10:31	06/24/2020
97701	ED-DU03_02 - EB	Aqueous	06/23/2020 11:25	06/24/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 07/02/2020

Received : 06/24/2020



Andrea R. Brownfield
Project manager

Report Number : **20-176-0188**

REPORT OF ANALYSIS

Lab No : **97620**

Matrix: **Solids**

Sample ID : **ED-DU03_02 - Primary - Composite**

Sampled: **6/23/2020 9:57**

Analytical Method: 8082A

Prep Batch(es): **L499148** 06/30/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/01/20 13:31	VIC	L499313
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/01/20 13:31	VIC	L499313
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/01/20 13:31	VIC	L499313
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/01/20 13:31	VIC	L499313
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/01/20 13:31	VIC	L499313
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/01/20 13:31	VIC	L499313
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/01/20 13:31	VIC	L499313
Surrogate: Decachlorobiphenyl	80.1		Limits: 25-125%	1	07/01/20 13:31	VIC	L499313
Surrogate: Tetrachloro-m-xylene	71.4		Limits: 25-125%	1	07/01/20 13:31	VIC	L499313

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 07/02/2020
Received : 06/24/2020



Andrea R. Brownfield
Project manager

Report Number : **20-176-0188**

REPORT OF ANALYSIS

Lab No : **97647**

Matrix: **Solids**

Sample ID : **ED-DU03_02 - Secondary - Composite**

Sampled: **6/23/2020 9:50**

Analytical Method: 8082A

Prep Batch(es): **L499148** 06/30/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/01/20 13:52	VIC	L499313
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/01/20 13:52	VIC	L499313
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/01/20 13:52	VIC	L499313
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/01/20 13:52	VIC	L499313
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/01/20 13:52	VIC	L499313
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/01/20 13:52	VIC	L499313
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/01/20 13:52	VIC	L499313
Surrogate: Decachlorobiphenyl	74.9		Limits: 25-125%	1	07/01/20 13:52	VIC	L499313
Surrogate: Tetrachloro-m-xylene	72.3		Limits: 25-125%	1	07/01/20 13:52	VIC	L499313

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.:172-367

Report Date : 07/02/2020
Received : 06/24/2020



Report Number : **20-176-0188**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **97674**

Matrix: **Solids**

Sample ID : **ED-DU03_02 - Tertiary - Composite**

Sampled: **6/23/2020 10:31**

Analytical Method: 8082A **Prep Batch(es):** **L499148** 06/30/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/01/20 13:09	VIC	L499313
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/01/20 13:09	VIC	L499313
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/01/20 13:09	VIC	L499313
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/01/20 13:09	VIC	L499313
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/01/20 13:09	VIC	L499313
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/01/20 13:09	VIC	L499313
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/01/20 13:09	VIC	L499313
Surrogate: Decachlorobiphenyl	62.3		Limits: 25-125%	1	07/01/20 13:09	VIC	L499313
Surrogate: Tetrachloro-m-xylene	67.4		Limits: 25-125%	1	07/01/20 13:09	VIC	L499313

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:172-367

Report Date : 07/02/2020

Received : 06/24/2020



Andrea R. Brownfield
Project manager

Report Number : **20-176-0188**

REPORT OF ANALYSIS

Lab No : **97701**

Matrix: **Aqueous**

Sample ID : **ED-DU03_02 - EB**

Sampled: **6/23/2020 11:25**

Analytical Method: 8082A **Prep Batch(es):** L499072 06/30/20 12:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/01/20 01:10	VIC	L499310
Aroclor 1221	<0.50	µg/L	0.50	1	07/01/20 01:10	VIC	L499310
Aroclor 1232	<0.50	µg/L	0.50	1	07/01/20 01:10	VIC	L499310
Aroclor 1242	<0.50	µg/L	0.50	1	07/01/20 01:10	VIC	L499310
Aroclor 1248	<0.50	µg/L	0.50	1	07/01/20 01:10	VIC	L499310
Aroclor 1254	<0.50	µg/L	0.50	1	07/01/20 01:10	VIC	L499310
Aroclor 1260	<0.50	µg/L	0.50	1	07/01/20 01:10	VIC	L499310
Surrogate: Decachlorobiphenyl	47.0		Limits: 36-116%	1	07/01/20 01:10	VIC	L499310
Surrogate: Tetrachloro-m-xylene	57.4		Limits: 25-123%	1	07/01/20 01:10	VIC	L499310

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-176-0188

QC Prep: L499072 **QC Analytical Batch(es):** L499310
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499072 Matrix: AQU
Associated Lab Samples: 97701

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1221	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1232	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1242	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1248	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1254	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1260	µg/L	< 0.200	0.200	06/30/20 23:15		
Decachlorobiphenyl (S)				06/30/20 23:15	43.0	36-116
Tetrachloro-m-xylene (S)				06/30/20 23:15	46.5	25-123

Laboratory Control Sample & LCSD LCS-L499072 LCSD-L499072

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.70	4.38	74.0	87.6	44-116	16.8	20.0
Aroclor 1260	µg/L	5.00	3.33	4.90	66.6	98.0	43-129	38.1*	20.0
Decachlorobiphenyl (S)					38.5	58.1	36-116		
Tetrachloro-m-xylene (S)					44.8	57.0	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-176-0188

QC Prep: L499148 **QC Analytical Batch(es):** L499313
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499148 Matrix: SOL
 Associated Lab Samples: 97620, 97647, 97674

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/01/20 11:23		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/01/20 11:23		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/01/20 11:23		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/01/20 11:23		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/01/20 11:23		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/01/20 11:23		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/01/20 11:23		
Decachlorobiphenyl (S)				07/01/20 11:23	70.5	25-125
Tetrachloro-m-xylene (S)				07/01/20 11:23	64.0	25-125

Laboratory Control Sample LCS-L499148

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.154	92.2	50-125
Aroclor 1260	mg/Kg	0.167	0.144	86.2	50-125
Decachlorobiphenyl (S)				65.5	25-125
Tetrachloro-m-xylene (S)				71.0	25-125

Matrix Spike & Matrix Spike Duplicate L 97674-MS-L499148 L 97674-MSD-L499148

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.0884	0.0939	0.185	0.193	209*	206*	40-140	4.2	30
Aroclor 1260	mg/Kg	<0.0066	0.0884	0.0939	0.0762	0.0903	86.1	96.1	40-140	16.9	30
Decachlorobiphenyl (S)							63.0	67.6	25-125		
Tetrachloro-m-xylene (S)							70.8	70.5	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-176-0188**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #102

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU03_02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	0957	ED-DU03_02-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0950	ED-DU03_02-03S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Custody Seals				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on:				
Q/N	Y/N		Relinquished by: (SIGNATURE)		Cooler(s)/Container(s)				
			Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)						
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
0.7°C T101									
1.9°C T101									

[Signature] 6/24/20
08:45



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-176-0188
 25226
 06-24-2020
 17:11:53

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1031	ED-DU03_02-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time
		Jenny O'Brien	6/23 1730	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time

Blank/Cooler Temp
 0.7°C T101
 1.9°C TP

[Signature] 6/24/20
 08:45



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-176-0188
 25226
 06-24-2020
 17:11:53

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	0950	ED-DU03_02-06S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Cooler(s)/Container(s)			
<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/23	1730			
Blank Cooler Temp			Relinquished by: (SIGNATURE)		Received by: (SIGNATURE)		Date Time	
0.7°C T101 1.9°C T10					J. Phillips		6/24/20 08:45	



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-176-0188
 25226
 06-24-2020
 17:11:53

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU03_02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	0957	ED-DU03_02-09P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0950	ED-DU03_02-11S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on:					
Q/N	Q/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/23	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.7°C T101 0.1.9°C T102							J. P. [Signature]		6/24/20	08:45



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-176-0188
 25226
 06-24-2020
 17:11:53

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU03_02	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordbrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1031	ED-DU03_02-11T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments	
Ice Q/N	Custody Seals Q/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/23	Time 1730
Blank/Cooler Temp 0.7°C T101 1.9°C TP		Relinquished by: (SIGNATURE)	Date	Time
		Relinquished by: (SIGNATURE) [Signature]	Date 6/24/20	Time 08:45



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-176-0188
 25226
 06-24-2020
 17:11:53
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	0950	ED-DU03_02-14S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/23	1730
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time
0.7°C (110) 1.9°C (TP)				
		Relinquished by: (SIGNATURE)	Date	Time
			6/24/20	08:45



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-176-0188
 25226
 06-24-2020
 17:11:53
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU03_02	Project Number 172-307	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Aroanic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	0957	ED-DU03_02-17P	Solids	B	1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0950	ED-DU03_02-19S	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments received on: Cooler(s)/Container(s)			
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/23	Time 1730	Received by: (SIGNATURE)	Date 6/24/20
Blank/Cooler Temp 0.7°C T101 1.9°C TP		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-176-0188
 25226
 06-24-2020
 17:11:53

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU03_02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordbrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1031	ED-DU03_02-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)	
(Y/N)	(Y/N)	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time
		Jenny O'Brien	6/23 1730	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time

Blank/Cooler Temp
 0.7°C (TP)
 1.9°C (TP)

(Signature)
 6/24/20
 08:45



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-176-0188
 25226
 06-24-2020
 17-11:53

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU03_02	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordbrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	0950	ED-DU03_02-22S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments received on: Cooler(s)/Container(s)	
Ice <input checked="" type="checkbox"/> Y/N	Custody Seals <input checked="" type="checkbox"/> Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/23 1730	Received by: (SIGNATURE)
Blank/Cooler Temp 0.7°C T101 1.9°C TP		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) 6/24/20

08:45



Kit ID:	139573
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-176-0188
 25226
 06-24-2020
 17:11:53
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU03_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	0957	ED-DU03_02-25P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-25S	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-25T	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	0957	ED-DU03_02-26P	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	0950	ED-DU03_02-26S	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1031	ED-DU03_02-26T	SOL		1	Glass - 4oz	NONE	8082 - PCBs
	1125	ED-DU03_02-EB	AQU		2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals received on:

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Cooler(s)/Container(s)					
YN	YN		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/23	1730				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank Cooler Temp 0.7°C T161 1.9°C TP							Jenny O'Brien		6/24/20	08:45

7/2/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-176-0115
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/24/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

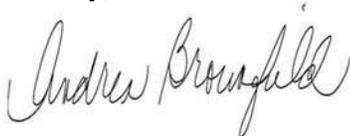
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-176-0115
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
97345	ED-DU02_02 - Primary - Composite	Solids	06/23/2020 11:45	06/24/2020
97372	ED-DU02_02 - Secondary - Composite	Solids	06/23/2020 11:57	06/24/2020
97399	ED-DU02_02 - Tertiary - Composite	Solids	06/23/2020 12:07	06/24/2020
97426	ED-DU02_02 - EB	Aqueous	06/23/2020 12:23	06/24/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020

Received : 06/24/2020



Andrea R. Brownfield
Project manager

Report Number : **20-176-0115**

REPORT OF ANALYSIS

Lab No : **97345**

Matrix: **Solids**

Sample ID : **ED-DU02_02 - Primary - Composite**

Sampled: **6/23/2020 11:45**

Analytical Method: 8082A **Prep Batch(es):** L498862 06/29/20 17:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/30/20 11:41	VIC	L499123
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/30/20 11:41	VIC	L499123
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/30/20 11:41	VIC	L499123
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/30/20 11:41	VIC	L499123
Aroclor 1248	<1.00	mg/Kg	1.00	10	06/30/20 11:41	VIC	L499123
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/30/20 11:41	VIC	L499123
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/30/20 11:41	VIC	L499123
Surrogate: Decachlorobiphenyl	79.8		Limits: 25-125%	10	06/30/20 11:41	VIC	L499123
Surrogate: Tetrachloro-m-xylene	112		Limits: 25-125%	10	06/30/20 11:41	VIC	L499123

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020

Received : 06/24/2020



Andrea R. Brownfield
Project manager

Report Number : **20-176-0115**

REPORT OF ANALYSIS

Lab No : **97372**

Matrix: **Solids**

Sample ID : **ED-DU02_02 - Secondary - Composite**

Sampled: **6/23/2020 11:57**

Analytical Method: 8082A

Prep Batch(es): L498862 06/29/20 17:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/30/20 12:02	VIC	L499123
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/30/20 12:02	VIC	L499123
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/30/20 12:02	VIC	L499123
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/30/20 12:02	VIC	L499123
Aroclor 1248	6.60	mg/Kg	1.00	100	06/30/20 13:27	VIC	L499123
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/30/20 12:02	VIC	L499123
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/30/20 12:02	VIC	L499123
Surrogate: Decachlorobiphenyl	62.8		Limits: 25-125%	10	06/30/20 12:02	VIC	L499123
Surrogate: Tetrachloro-m-xylene	101		Limits: 25-125%	10	06/30/20 12:02	VIC	L499123

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020

Received : 06/24/2020



Andrea R. Brownfield
Project manager

Report Number : **20-176-0115**

REPORT OF ANALYSIS

Lab No : **97399**

Matrix: **Solids**

Sample ID : **ED-DU02_02 - Tertiary - Composite**

Sampled: **6/23/2020 12:07**

Analytical Method: 8082A **Prep Batch(es):** L498862 06/29/20 17:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	06/30/20 12:23	VIC	L499123
Aroclor 1221	<1.00	mg/Kg	1.00	10	06/30/20 12:23	VIC	L499123
Aroclor 1232	<1.00	mg/Kg	1.00	10	06/30/20 12:23	VIC	L499123
Aroclor 1242	<1.00	mg/Kg	1.00	10	06/30/20 12:23	VIC	L499123
Aroclor 1248	1.28	mg/Kg	1.00	10	06/30/20 12:23	VIC	L499123
Aroclor 1254	<1.00	mg/Kg	1.00	10	06/30/20 12:23	VIC	L499123
Aroclor 1260	<1.00	mg/Kg	1.00	10	06/30/20 12:23	VIC	L499123
Surrogate: Decachlorobiphenyl	73.2		Limits: 25-125%	10	06/30/20 12:23	VIC	L499123
Surrogate: Tetrachloro-m-xylene	104		Limits: 25-125%	10	06/30/20 12:23	VIC	L499123

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020
Received : 06/24/2020



Andrea R. Brownfield
Project manager

Report Number : **20-176-0115**

REPORT OF ANALYSIS

Lab No : **97426**

Matrix: **Aqueous**

Sample ID : **ED-DU02_02 - EB**

Sampled: **6/23/2020 12:23**

Analytical Method: 8082A **Prep Batch(es):** L499072 06/30/20 12:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/01/20 00:49	VIC	L499310
Aroclor 1221	<0.50	µg/L	0.50	1	07/01/20 00:49	VIC	L499310
Aroclor 1232	<0.50	µg/L	0.50	1	07/01/20 00:49	VIC	L499310
Aroclor 1242	<0.50	µg/L	0.50	1	07/01/20 00:49	VIC	L499310
Aroclor 1248	<0.50	µg/L	0.50	1	07/01/20 00:49	VIC	L499310
Aroclor 1254	<0.50	µg/L	0.50	1	07/01/20 00:49	VIC	L499310
Aroclor 1260	<0.50	µg/L	0.50	1	07/01/20 00:49	VIC	L499310
Surrogate: Decachlorobiphenyl	42.6		Limits: 36-116%	1	07/01/20 00:49	VIC	L499310
Surrogate: Tetrachloro-m-xylene	56.1		Limits: 25-123%	1	07/01/20 00:49	VIC	L499310

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-176-0115

QC Prep: L498862 **QC Analytical Batch(es):** L499123
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L498862 Matrix: SOL
 Associated Lab Samples: 97345, 97372, 97399

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	06/30/20 10:58		
Aroclor 1221	mg/Kg	<0.0066	0.0066	06/30/20 10:58		
Aroclor 1232	mg/Kg	<0.0066	0.0066	06/30/20 10:58		
Aroclor 1242	mg/Kg	<0.0066	0.0066	06/30/20 10:58		
Aroclor 1248	mg/Kg	<0.0066	0.0066	06/30/20 10:58		
Aroclor 1254	mg/Kg	<0.0066	0.0066	06/30/20 10:58		
Aroclor 1260	mg/Kg	<0.0066	0.0066	06/30/20 10:58		
Decachlorobiphenyl (S)				06/30/20 10:58	82.5	25-125
Tetrachloro-m-xylene (S)				06/30/20 10:58	74.0	25-125

Laboratory Control Sample LCS-L498862

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.176	105	50-125
Aroclor 1260	mg/Kg	0.167	0.177	106	50-125
Decachlorobiphenyl (S)				87.0	25-125
Tetrachloro-m-xylene (S)				73.5	25-125

Matrix Spike & Matrix Spike Duplicate L 97345-MS-L498862 L 97345-MSD-L498862

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.0986	0.0979	1.62	1.80	1640*	1840*	40-140	10.5	30
Aroclor 1260	mg/Kg	<0.0667	0.0986	0.0979	0.140	0.166	142*	170*	40-140	16.9	30
Decachlorobiphenyl (S)							64.4	73.7	25-125		
Tetrachloro-m-xylene (S)							57.1	112	25-125		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-176-0115

QC Prep: L499072 **QC Analytical Batch(es):** L499310
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499072 Matrix: AQU
 Associated Lab Samples: 97426

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1221	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1232	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1242	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1248	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1254	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1260	µg/L	< 0.200	0.200	06/30/20 23:15		
Decachlorobiphenyl (S)				06/30/20 23:15	43.0	36-116
Tetrachloro-m-xylene (S)				06/30/20 23:15	46.5	25-123

Laboratory Control Sample & LCSD LCS-L499072 LCSD-L499072

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.70	4.38	74.0	87.6	44-116	16.8	20.0
Aroclor 1260	µg/L	5.00	3.33	4.90	66.6	98.0	43-129	38.1*	20.0
Decachlorobiphenyl (S)					38.5	58.1	36-116		
Tetrachloro-m-xylene (S)					44.8	57.0	25-123		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-176-0115**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID: #101

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	139574
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-176-0115
 25226
 06-24-2020
 16:14:21
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Aroanic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1145	ED-DU02_02-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals received on:	
Ice	Custody Seals	Lab Comments	J. O'Brien						Cooler(s)/Container(s)	
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/23	1730				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp										
1.5°C T101										
0.9°C TP									6/24/20 08:45	



Kit ID:	139574
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Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

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 Civil & Environmental Consultants, Inc.
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Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_02	Project Number 172-307	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1207	ED-DU02_02-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) J O'Brien	Client Remarks/Comments received on:		
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	received on: Cooler(s)/Container(s)		
Blank/Cooler Temp 1.5°C T101 0.9°C TP			Date Time 6/23 1730	Received by: (SIGNATURE)	Date Time
			Date Time	Received by: (SIGNATURE)	Date Time
			Date Time	Received by: (SIGNATURE)	Date Time 6/24/20 08:45

Kit ID:	139574
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Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

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 Elliott Ditch Remediation Confirmation - ISM

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Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_02	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/13	1157	ED-DU02_02-06S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) J. O'Brien		Client Remarks/Comments received on: Cooler(s)/Container(s)			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/23 1730	Received by: (SIGNATURE)	Date Time		
Blank Cooler Temp 1.5°C T101 0.9°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time	6/24/20 08:45	

Kit ID:	139574
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Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02_02	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1145	ED-DU02_02-09P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1157	ED-DU02_02-11S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	J. O'Brien		received on: Cooler(s)/Container(s)					
Q/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jimmy O'Brien		6/23	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank Cooler Temp							4/Phillips		6/24/20	08:45
1.5°C T101										
0.9°C TP										



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Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

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Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1207	ED-DU02_02-11T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1145	ED-DU02_02-12P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs
↓	1157	ED-DU02_02-12S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs
↓	1207	ED-DU02_02-12T	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs
↓	1145	ED-DU02_02-13P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs
↓	1157	ED-DU02_02-13S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs
↓	1207	ED-DU02_02-13T	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs
↓	1145	ED-DU02_02-14P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) J. O'Brien	Client Remarks/Comments		Custody Seals received on: Cooler(s)/Container(s)	
Ice O/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/23	Time 1730	Received by: (SIGNATURE)	Date 6/24/20
Blank/ Cooler Temp 1.5°C (TIG) 0.9°C (TP)		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date 08:45
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date

Kit ID:	139574
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

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 Civil & Environmental Consultants, Inc.
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Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_02	Project Number J72-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1157	ED-DU02_02-14S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1207	ED-DU02_02-16T	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) J. O'Brien		Client Remarks/Comments			Custody Seals received on:		
Ice Q/N	Custody Seals Q/N	Lab Comments	Relinquished by: (SIGNATURE) Jimmy O'Brien	Date Time 6/23 1730	Received by: (SIGNATURE) Cooler(s) Container(s)					
Blank/Cooler Temp 1.5°C T101 0.9°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time				
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time				
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time				



Kit ID:	139574
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Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

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Civil & Environmental Consultants, Inc.
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Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU02_02	172-307		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1145	ED-DU02_02-17P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	J. O'Brien		Custody Seals received on: Cooler(s)/Container(s)					
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/23	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp							[Signature] 6/24/20 08:45			
1.5°C T101										
0.9°C (TP)										

Kit ID:	139574
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

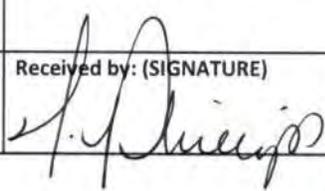


20-176-0115
 25226
 06-24-2020
 16:14:21
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1207	ED-DU02_02-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1145	ED-DU02_02-22P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) J. O'Brien		Client Remarks/Comments		Custody Seals received on:	
Ice O/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jimmy O'Brien	Date Time 6/23 1730	Received by: (SIGNATURE)	Date Time	Cooler(s)/Container(s)	
Blank Cooler Temp 1.5°C T1Q1 0.9°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		


 6/24/20
 08:45



Kit ID:	139574
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-176-0115
 25226
 06-24-2020
 16:14:21

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1157	ED-DU02_02-22S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-24S *	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1207	ED-DU02_02-24T	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print) J. O'Brien		Client Remarks/Comments received on: Cooler(s)/Container(s)			
Ice O/N	Custody Seals O/N	Lab Comments * Arrived Broken. Client Will send in re-sample. ① 02-02-245 6/25/20 11:30	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/23	Time 1730	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 1.5°C T101 0.9°C T102			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time



Kit ID:	139574
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-176-0115
 25226
 06-24-2020
 16:14:21

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU02_02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/23	1145	ED-DU02_02-25P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-25S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-25T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1145	ED-DU02_02-26P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1157	ED-DU02_02-26S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1207	ED-DU02_02-26T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1323	ED-DU02_02-EB	Aqueous	↓	2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals received on:

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments				
Ice	Custody Seals	J. O'Brien	Cooler(s)/Container(s)				
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/23	1730			
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.5°C T101							
0.9°C TP							



7/2/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-177-0161
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/25/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-177-0161
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
98142	ED-DU01_02 - Primary - Composite	Solids	06/24/2020	06/25/2020
98143	ED-DU01_02 - Primary - Composite - Duplicate	Solids	06/24/2020 07:45	06/25/2020
98165	ED-DU01_02 - Secondary - Composite	Solids	06/24/2020 08:13	06/25/2020
98187	ED-DU01_02 - Tertiary - Composite	Solids	06/24/2020 08:42	06/25/2020
98209	ED-DU01_02 - EB	Aqueous	06/24/2020 11:30	06/25/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020
Received : 06/25/2020



Andrea R. Brownfield
Project manager

Report Number : **20-177-0161**

REPORT OF ANALYSIS

Lab No : **98142**

Matrix: **Solids**

Sample ID : **ED-DU01_02 - Primary - Composite**

Sampled: **6/24/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): L499381 07/01/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/02/20 12:45	VIC	L499545
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/02/20 12:45	VIC	L499545
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/02/20 12:45	VIC	L499545
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/02/20 12:45	VIC	L499545
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/02/20 12:45	VIC	L499545
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/02/20 12:45	VIC	L499545
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/02/20 12:45	VIC	L499545
Surrogate: Decachlorobiphenyl	73.9		Limits: 25-125%	1	07/02/20 12:45	VIC	L499545
Surrogate: Tetrachloro-m-xylene	64.6		Limits: 25-125%	1	07/02/20 12:45	VIC	L499545

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020

Received : 06/25/2020



Andrea R. Brownfield
Project manager

Report Number : **20-177-0161**

REPORT OF ANALYSIS

Lab No : **98143**

Matrix: **Solids**

Sample ID : **ED-DU01_02 - Primary - Composite - Duplicate**

Sampled: **6/24/2020 7:45**

Analytical Method: 8082A **Prep Batch(es):** L499381 07/01/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/02/20 13:06	VIC	L499545
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/02/20 13:06	VIC	L499545
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/02/20 13:06	VIC	L499545
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/02/20 13:06	VIC	L499545
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/02/20 13:06	VIC	L499545
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/02/20 13:06	VIC	L499545
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/02/20 13:06	VIC	L499545
Surrogate: Decachlorobiphenyl	76.7		Limits: 25-125%	1	07/02/20 13:06	VIC	L499545
Surrogate: Tetrachloro-m-xylene	64.2		Limits: 25-125%	1	07/02/20 13:06	VIC	L499545

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020
Received : 06/25/2020



Andrea R. Brownfield
Project manager

Report Number : **20-177-0161**

REPORT OF ANALYSIS

Lab No : **98165**

Matrix: **Solids**

Sample ID : **ED-DU01_02 - Secondary - Composite**

Sampled: **6/24/2020 8:13**

Analytical Method: 8082A **Prep Batch(es):** L499381 07/01/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/02/20 13:27	VIC	L499545
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/02/20 13:27	VIC	L499545
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/02/20 13:27	VIC	L499545
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/02/20 13:27	VIC	L499545
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/02/20 13:27	VIC	L499545
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/02/20 13:27	VIC	L499545
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/02/20 13:27	VIC	L499545
Surrogate: Decachlorobiphenyl	69.3		Limits: 25-125%	1	07/02/20 13:27	VIC	L499545
Surrogate: Tetrachloro-m-xylene	60.9		Limits: 25-125%	1	07/02/20 13:27	VIC	L499545

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020
Received : 06/25/2020



Andrea R. Brownfield
Project manager

Report Number : **20-177-0161**

REPORT OF ANALYSIS

Lab No : **98187**

Matrix: **Solids**

Sample ID : **ED-DU01_02 - Tertiary - Composite**

Sampled: **6/24/2020 8:42**

Analytical Method: 8082A **Prep Batch(es):** L499381 07/01/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/02/20 13:49	VIC	L499545
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/02/20 13:49	VIC	L499545
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/02/20 13:49	VIC	L499545
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/02/20 13:49	VIC	L499545
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/02/20 13:49	VIC	L499545
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/02/20 13:49	VIC	L499545
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/02/20 13:49	VIC	L499545
Surrogate: Decachlorobiphenyl	71.2		Limits: 25-125%	1	07/02/20 13:49	VIC	L499545
Surrogate: Tetrachloro-m-xylene	63.6		Limits: 25-125%	1	07/02/20 13:49	VIC	L499545

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/02/2020

Received : 06/25/2020



Andrea R. Brownfield
Project manager

Report Number : **20-177-0161**

REPORT OF ANALYSIS

Lab No : **98209**

Matrix: **Aqueous**

Sample ID : **ED-DU01_02 - EB**

Sampled: **6/24/2020 11:30**

Analytical Method: 8082A **Prep Batch(es):** L499072 06/30/20 12:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/01/20 01:53	VIC	L499310
Aroclor 1221	<0.50	µg/L	0.50	1	07/01/20 01:53	VIC	L499310
Aroclor 1232	<0.50	µg/L	0.50	1	07/01/20 01:53	VIC	L499310
Aroclor 1242	<0.50	µg/L	0.50	1	07/01/20 01:53	VIC	L499310
Aroclor 1248	<0.50	µg/L	0.50	1	07/01/20 01:53	VIC	L499310
Aroclor 1254	<0.50	µg/L	0.50	1	07/01/20 01:53	VIC	L499310
Aroclor 1260	<0.50	µg/L	0.50	1	07/01/20 01:53	VIC	L499310
Surrogate: Decachlorobiphenyl	36.2		Limits: 36-116%	1	07/01/20 01:53	VIC	L499310
Surrogate: Tetrachloro-m-xylene	60.0		Limits: 25-123%	1	07/01/20 01:53	VIC	L499310

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-177-0161

QC Prep: L499072 **QC Analytical Batch(es):** L499310
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499072 Matrix: AQU
Associated Lab Samples: 98209

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1221	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1232	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1242	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1248	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1254	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1260	µg/L	< 0.200	0.200	06/30/20 23:15		
Decachlorobiphenyl (S)				06/30/20 23:15	43.0	36-116
Tetrachloro-m-xylene (S)				06/30/20 23:15	46.5	25-123

Laboratory Control Sample & LCSD LCS-L499072 LCSD-L499072

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.70	4.38	74.0	87.6	44-116	16.8	20.0
Aroclor 1260	µg/L	5.00	3.33	4.90	66.6	98.0	43-129	38.1*	20.0
Decachlorobiphenyl (S)					38.5	58.1	36-116		
Tetrachloro-m-xylene (S)					44.8	57.0	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-177-0161

QC Prep: L499381 **QC Analytical Batch(es):** L499545
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499381 Matrix: SOL
 Associated Lab Samples: 98142, 98143, 98165, 98187

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/02/20 12:02		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/02/20 12:02		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/02/20 12:02		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/02/20 12:02		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/02/20 12:02		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/02/20 12:02		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/02/20 12:02		
Decachlorobiphenyl (S)				07/02/20 12:02	67.5	25-125
Tetrachloro-m-xylene (S)				07/02/20 12:02	65.5	25-125

Laboratory Control Sample LCS-L499381

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.165	98.8	50-125
Aroclor 1260	mg/Kg	0.167	0.159	95.2	50-125
Decachlorobiphenyl (S)				70.5	25-125
Tetrachloro-m-xylene (S)				70.0	25-125

Matrix Spike & Matrix Spike Duplicate L 98187-MS-L499381 L 98187-MSD-L499381

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.117	0.124	0.599	0.649	512*	523*	40-140	8.0	30
Aroclor 1260	mg/Kg	<0.0066	0.117	0.124	0.115	0.119	98.2	95.9	40-140	3.4	30
Decachlorobiphenyl (S)							75.8	63.3	25-125		
Tetrachloro-m-xylene (S)							68.9	69.7	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-177-0161**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #102

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	139575
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-177-0161
 25226
 06-25-2020
 17:38:46

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU01_02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/24	0745	ED-DU01_02-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0813	ED-DU01_02-03S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	J. O'Brien	Waypoint to generate field duplicate from ED-DU01-02-Primary for PCB analysis			
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	6/24	1730		
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

Blank/ Cooler Temp	Custody Seals received on: Cooler(s)/Container(s)
0.9°C T102	
1.4°C T19	

[Signature] 6/25/20
 08:30



Kit ID:	139575
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
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 25226
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 17:38:46

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/24	0842	ED-DU01_02-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0913	ED-DU01_02-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0745	ED-DU01_02-06P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	J. O'Brien	received on: see page 1 Cooler(s)/Container(s)	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time
		Jenny O'Brien	6/24 1730	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) Date Time

Blank/Cooler Temp
 0.9°C T102
 1.4°C TP

[Signature] 6/25/20
 08:30



Kit ID:	139575
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
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 17:38:46

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Atconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/24	0813	ED-DU01_02-06S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0842	ED-DU01_02-08T	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	J. O'Brien		received on: See page 1 Cooler(s)/Container(s)				
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		6/24	1730			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
0.9°C T102 1.4°C TP							J. O'Brien	6/25/20	08:30



Kit ID:	139575
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-177-0161
 25226
 06-25-2020
 17:38:46

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU01_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/24	0745	ED-DU01_02-09P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	0813	ED-DU01_02-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0842	ED-DU01_02-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0745	ED-DU01_02-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0813	ED-DU01_02-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0842	ED-DU01_02-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0745	ED-DU01_02-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0813	ED-DU01_02-11S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) J. O'Brien	Client Remarks/Comments See page 1	
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date Time 6/24 1730	Received by: (SIGNATURE)
Blank/Cooler Temp 0.9°C T102 1.4°C TP		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)

received on:
 Cooler(s)/Container(s)

[Signature] 6/25/20
 08:30



Kit ID:	139575
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-177-0161
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 06-25-2020
 17:38:46
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU01_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/24	0842	ED-DU01_02-11T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) J. O'Brien		Client Remarks/Comments See page 1				Custody Seals received on:			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/24	Time 1730	Received by: (SIGNATURE) [Signature]		Date	Time			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)		Date	Time			
Blank/Cooler Temp 0.9°C T102 1.4°C TP			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) [Signature]		Date 6/25/20	Time 08:30			



Kit ID:	139575
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-177-0161
 25226
 06-25-2020
 17:38:46
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU01_02	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/24	0813	ED-DU01_02-14S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	J. O'Brien	See page 1 received on:	
Q/N	Q/N	Relinquished by: (SIGNATURE)	Cooler(s)/Container(s)	
Blank/Cooler Temp		Jenny O'Brien	Date	Time
0.9°C T102			6/24	1730
1.4°C (TP)		Relinquished by: (SIGNATURE)	Date	Time
		Relinquished by: (SIGNATURE)	Date	Time

[Signature] 6/25/20
 08:30

Kit ID:	139575
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-177-0161
 25226
 06-25-2020
 17:38:46
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU01_02	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/24	0745	ED-DU01_02-17P	Solids	B	1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0942	ED-DU01_02-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0813	ED-DU01_02-19S	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) J. O'Brien Relinquished by: (SIGNATURE) Jenny O'Brien Relinquished by: (SIGNATURE) Relinquished by: (SIGNATURE)	Client Remarks/Comments See page 1			
Ice Y/N	Custody Seals Y/N		Custody Seals received on: Cooler(s)/Container(s)		Received by: (SIGNATURE) Date Time	
Blank/Cooler Temp 0.90c T102 1.40c TB			Received by: (SIGNATURE) Date Time		Received by: (SIGNATURE) Date Time	
			Received by: (SIGNATURE) Date Time		Received by: (SIGNATURE) Date Time	

6/24 1730
 6/25/20 08:30



Kit ID:	139575
Initiated By:	Andrea Brownfield
Initiated Date:	6/15/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-177-0161
 25226
 06-25-2020
 17:38:46
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - iSM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01_02	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/24	0842	ED-DU01_02-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0745	ED-DU01_02-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0813	ED-DU01_02-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0842	ED-DU01_02-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1130	ED-DU01_02-EB	Aqueous	✓	2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	J. O'Brien	See page 1	
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N	Relinquished by: (SIGNATURE)	received on:	
		Jenny O'Brien	Cooler(s)/Container(s)	
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time
0.9°C T102			6/24	1730
0.4°C TP		Relinquished by: (SIGNATURE)	Received by: (SIGNATURE)	Date Time

[Signature] 6/25/20
 08:30

7/6/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-178-0187
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/26/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

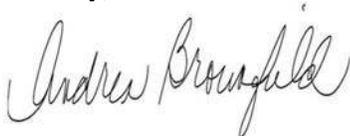
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-178-0187
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
98739	ED-DU10_03 - Primary - Composite	Solids	06/25/2020 07:05	06/26/2020
98764	ED-DU10_03 - Secondary - Composite	Solids	06/25/2020 07:20	06/26/2020
98789	ED-DU10_03 - Tertiary - Composite	Solids	06/25/2020 07:25	06/26/2020
98814	ED-DU10_03 - EB	Aqueous	06/25/2020 10:15	06/26/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/06/2020
Received : 06/26/2020



Report Number : **20-178-0187**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **98739**

Matrix: **Solids**

Sample ID : **ED-DU10_03 - Primary - Composite**

Sampled: **6/25/2020 7:05**

Analytical Method: 8082A

Prep Batch(es): **L499582** 07/02/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	07/06/20 11:39	VIC	L499781
Aroclor 1221	<1.00	mg/Kg	1.00	10	07/06/20 11:39	VIC	L499781
Aroclor 1232	<1.00	mg/Kg	1.00	10	07/06/20 11:39	VIC	L499781
Aroclor 1242	<1.00	mg/Kg	1.00	10	07/06/20 11:39	VIC	L499781
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/06/20 11:39	VIC	L499781
Aroclor 1254	<1.00	mg/Kg	1.00	10	07/06/20 11:39	VIC	L499781
Aroclor 1260	<1.00	mg/Kg	1.00	10	07/06/20 11:39	VIC	L499781
Surrogate: Decachlorobiphenyl	113		Limits: 25-125%	10	07/06/20 11:39	VIC	L499781
Surrogate: Tetrachloro-m-xylene	112		Limits: 25-125%	10	07/06/20 11:39	VIC	L499781

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/06/2020
Received : 06/26/2020



Andrea R. Brownfield
Project manager

Report Number : **20-178-0187**

REPORT OF ANALYSIS

Lab No : **98764**

Matrix: **Solids**

Sample ID : **ED-DU10_03 - Secondary - Composite**

Sampled: **6/25/2020 7:20**

Analytical Method: 8082A

Prep Batch(es): **L499582** 07/02/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	07/06/20 13:04	VIC	L499781
Aroclor 1221	<1.00	mg/Kg	1.00	10	07/06/20 13:04	VIC	L499781
Aroclor 1232	<1.00	mg/Kg	1.00	10	07/06/20 13:04	VIC	L499781
Aroclor 1242	<1.00	mg/Kg	1.00	10	07/06/20 13:04	VIC	L499781
Aroclor 1248	1.01	mg/Kg	1.00	10	07/06/20 13:04	VIC	L499781
Aroclor 1254	<1.00	mg/Kg	1.00	10	07/06/20 13:04	VIC	L499781
Aroclor 1260	<1.00	mg/Kg	1.00	10	07/06/20 13:04	VIC	L499781
Surrogate: Decachlorobiphenyl	85.9		Limits: 25-125%	10	07/06/20 13:04	VIC	L499781
Surrogate: Tetrachloro-m-xylene	115		Limits: 25-125%	10	07/06/20 13:04	VIC	L499781

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/06/2020

Received : 06/26/2020



Andrea R. Brownfield
Project manager

Report Number : **20-178-0187**

REPORT OF ANALYSIS

Lab No : **98789**

Matrix: **Solids**

Sample ID : **ED-DU10_03 - Tertiary - Composite**

Sampled: **6/25/2020 7:25**

Analytical Method: 8082A

Prep Batch(es): **L499582** 07/02/20 16:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	07/06/20 13:25	VIC	L499781
Aroclor 1221	<1.00	mg/Kg	1.00	10	07/06/20 13:25	VIC	L499781
Aroclor 1232	<1.00	mg/Kg	1.00	10	07/06/20 13:25	VIC	L499781
Aroclor 1242	<1.00	mg/Kg	1.00	10	07/06/20 13:25	VIC	L499781
Aroclor 1248	2.06	mg/Kg	1.00	10	07/06/20 13:25	VIC	L499781
Aroclor 1254	<1.00	mg/Kg	1.00	10	07/06/20 13:25	VIC	L499781
Aroclor 1260	<1.00	mg/Kg	1.00	10	07/06/20 13:25	VIC	L499781
Surrogate: Decachlorobiphenyl	82.9		Limits: 25-125%	10	07/06/20 13:25	VIC	L499781
Surrogate: Tetrachloro-m-xylene	105		Limits: 25-125%	10	07/06/20 13:25	VIC	L499781

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/06/2020
Received : 06/26/2020



Andrea R. Brownfield
Project manager

Report Number : **20-178-0187**

REPORT OF ANALYSIS

Lab No : **98814**

Matrix: **Aqueous**

Sample ID : **ED-DU10_03 - EB**

Sampled: **6/25/2020 10:15**

Analytical Method: 8082A

Prep Batch(es): L499072 06/30/20 12:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/01/20 02:14	VIC	L499310
Aroclor 1221	<0.50	µg/L	0.50	1	07/01/20 02:14	VIC	L499310
Aroclor 1232	<0.50	µg/L	0.50	1	07/01/20 02:14	VIC	L499310
Aroclor 1242	<0.50	µg/L	0.50	1	07/01/20 02:14	VIC	L499310
Aroclor 1248	<0.50	µg/L	0.50	1	07/01/20 02:14	VIC	L499310
Aroclor 1254	<0.50	µg/L	0.50	1	07/01/20 02:14	VIC	L499310
Aroclor 1260	<0.50	µg/L	0.50	1	07/01/20 02:14	VIC	L499310
Surrogate: Decachlorobiphenyl	60.0		Limits: 36-116%	1	07/01/20 02:14	VIC	L499310
Surrogate: Tetrachloro-m-xylene	62.0		Limits: 25-123%	1	07/01/20 02:14	VIC	L499310

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-178-0187

QC Prep: L499072 **QC Analytical Batch(es):** L499310
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499072 Matrix: AQU
Associated Lab Samples: 98814

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1221	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1232	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1242	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1248	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1254	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1260	µg/L	< 0.200	0.200	06/30/20 23:15		
Decachlorobiphenyl (S)				06/30/20 23:15	43.0	36-116
Tetrachloro-m-xylene (S)				06/30/20 23:15	46.5	25-123

Laboratory Control Sample & LCSD LCS-L499072 LCSD-L499072

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.70	4.38	74.0	87.6	44-116	16.8	20.0
Aroclor 1260	µg/L	5.00	3.33	4.90	66.6	98.0	43-129	38.1*	20.0
Decachlorobiphenyl (S)					38.5	58.1	36-116		
Tetrachloro-m-xylene (S)					44.8	57.0	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-178-0187

QC Prep: L499582 **QC Analytical Batch(es):** L499781
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499582 Matrix: SOL
Associated Lab Samples: 98739, 98764, 98789

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/06/20 10:56		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/06/20 10:56		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/06/20 10:56		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/06/20 10:56		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/06/20 10:56		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/06/20 10:56		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/06/20 10:56		
Decachlorobiphenyl (S)				07/06/20 10:56	92.0	25-125
Tetrachloro-m-xylene (S)				07/06/20 10:56	66.5	25-125

Laboratory Control Sample LCS-L499582

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.175	105	50-125
Aroclor 1260	mg/Kg	0.167	0.176	105	50-125
Decachlorobiphenyl (S)				93.0	25-125
Tetrachloro-m-xylene (S)				79.0	25-125

Matrix Spike & Matrix Spike Duplicate L 98739-MS-L499582 L 98739-MSD-L499582

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.0880	0.0898	4.04	4.19	4590*	4670*	40-140	3.6	30
Aroclor 1260	mg/Kg	<0.0667	0.0880	0.0898	0.273	0.286	310*	318*	40-140	4.6	30
Decachlorobiphenyl (S)							81.6	89.9	25-125		
Tetrachloro-m-xylene (S)							104	112	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-178-0187**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #102

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	140023
Initiated By:	Andrea Brownfield
Initiated Date:	6/22/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DE10_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0705	ED-DE10_03-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0720	ED-DE10_03-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments Cooler(s)/Container(s) Custody Seals received on:	Jenny O'Brien		Waypoint to generate MS/MSD sample from ED-DE10-03 - Primary for PCB analysis			
Y/N	Y/N		Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date Time
			Relinquished by: (SIGNATURE)					
Blank/Cooler Temp 1.4°C T102 1.6°C TP			Relinquished by: (SIGNATURE)					

[Signature] 6/26/20 08:45



Kit ID: 140023
Initiated By: Andrea Brownfield
Initiated Date: 6/22/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-178-0187
 25226
 06-26-2020
 17:34:01

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DE10_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0725	ED-DE10_03-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0710	ED-DE10_03-40S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0705	ED-DE10_02-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1				Custody Seals received on:	
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/25	Time 1730	Received by: (SIGNATURE)	Container(s)	Date	Time	
Blank/Cooler Temp 1.4°C (102) 1.6°C (TP)			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Container(s)	Date	Time	
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Container(s)	Date	Time	

6/26/20
 08:45



Kit ID: 140023
Initiated By: Andrea Brownfield
Initiated Date: 6/22/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-178-0187
 25226
 06-26-2020
 17:34:01

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DE10_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0720	ED-DE10_03-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0725	ED-DE10_03-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments See page 1		Custody Seals received on:	
Ice 0/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/25	Time 1730	Received by: (SIGNATURE) [Signature]	Container(s) Cooler
Blank/Cooler Temp 1.4°C T102 1.6°C TP		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date

6/26/20 08:45



Kit ID: 140023
Initiated By: Andrea Brownfield
Initiated Date: 6/22/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-178-0187
 25226
 06-26-2020
 17:34:01

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DE10_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0705	ED-DE10_03-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0720	ED-DE10_03-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments See page 1		Custody Seals received on:	
Ice (Y/N)	Custody Seals (Y/N)	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/25	Time 1730	Received by: (SIGNATURE) Philip	Date Time 6/26/20 08:45
Blank/Cooler Temp 1.4°C T102 1.6°C (T1)		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time



Kit ID:	140023
Initiated By:	Andrea Brownfield
Initiated Date:	6/22/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-178-0187
 25226
 06-26-2020
 17:34:01

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DE10_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0725	ED-DE10_03-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0705	ED-DE10_03-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	See page 1	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/25	1730
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time
1.4°C T102				
1.6°C TP		Relinquished by: (SIGNATURE)	Date	Time
			6/26/20	08:45



Kit ID: 140023
Initiated By: Andrea Brownfield
Initiated Date: 6/22/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-178-0187
 25226
 06-26-2020
 17:34:01

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DE10_03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0720	ED-DE10_03-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments see page 1		Custody Seals received on:
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/25	Time 1730	Cooler(s)/Container(s)
Blank/Cooler Temp 1.4°C T102 1.6°C T10		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) J. P. [Signature]
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE) 6/26/20 08:45



Kit ID:	140023
Initiated By:	Andrea Brownfield
Initiated Date:	6/22/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-178-0187
 25226
 06-26-2020
 17:34:01

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DE10_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0705	ED-DE10_03-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	see page 1 received on:	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Cooler(s)/Container(s)	
		Jenny O'Brien	Date Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	6/25 1730	
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
Blank/Cooler Temp				
1.4°C T102				
1.6°C T10				

[Signature] 6/26/20
 08:45



Kit ID: 140023
Initiated By: Andrea Brownfield
Initiated Date: 6/22/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-178-0187
 25226
 06-26-2020
 17:34:01
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DE10_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0725	ED-DE10_03-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0705	ED-DE10_03-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments See page 1				Custody Seals received on:	
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien		Date 6/25	Time 1730	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp 1.4°C T102 1.6°C TP			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time

6/26/20 08:45



Kit ID:	140023
Initiated By:	Andrea Brownfield
Initiated Date:	6/22/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-178-0187
 25226
 06-26-2020
 17:34:01
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DE10_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/25	0720	ED-DE10_03-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0725	ED-DE10_03-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0705	ED-DE10_03-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0720	ED-DE10_03-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0725	ED-DE10_03-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	received on: See page 1 <u>Cooler(s)/Container(s)</u>	
C/N	C/N	Relinquished by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/25	1730
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time
1.4°C T102				
1.6°C T10				
		Relinquished by: (SIGNATURE)	Date	Time

[Signature] 6/26/20
 08:45



Kit ID:	140023
Initiated By:	Andrea Brownfield
Initiated Date:	6/22/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-178-0187
 25226
 06-26-2020
 17:34:01

Company Name		Company Number		Client Project Manager/Contact			Purchase Order Number		
Civil & Environmental Consultants, Inc.		25226		Civil & Environmental Consultants, Inc.					
Site Name		Project Number		<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed			Method of Shipment		
DE10_03		172-367					<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other		
LIMS Project ID		Project Manager Phone #		Project Manager Email			Site/Facility ID #		
CEC Knox - Elliott Ditch		865-407-8861		jrickfordobrien@cecinc.com			Arconic - Elliott Ditch		
Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
6/25	1015	ED-DE10_03-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs	

Custody Seals received on:
Cooler(s)/Container(s)

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments				
Ice <input checked="" type="checkbox"/> Y/N	Custody Seals <input checked="" type="checkbox"/> Y/N	Lab Comments	Jenny O'Brien	See page 1				
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien	6/25	1730			
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 1.4°C T02 1.6°C T10			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
						J. P. [Signature]	6/26/20	08:45



7/7/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-181-0088
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/27/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-181-0088
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
85421	ED-DU09_03 - Primary - Composite	Solids	06/26/2020	06/27/2020
85448	ED-DU09_03 - Secondary - Composite	Solids	06/26/2020	06/27/2020
85475	ED-DU09_03 - Tertiary - Composite	Solids	06/26/2020	06/27/2020
85502	ED-DU09_03 - EB	Aqueous	06/26/2020 12:04	06/27/2020
87559	ED-DU09_03 - Secondary - Composite Re-Run	Solids	06/26/2020	06/27/2020



Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-181-0088
Date: 7/7/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 85448 (ED-DU09_03 - Secondary - Composite)

Analyte: Decachlorobiphenyl

QC Batch No: L500039/L499866

Surrogate(s) was flagged for recovery outside QC limits in this project sample. This sample was re-analyzed for verification, and/or dilution of target analytes. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Original Report Date : 07/07/2020
Revised Report Date: 07/09/2020
Received : 06/27/2020

Report Number : **20-181-0088**

REPORT OF ANALYSIS

Lab No : **85421**

Matrix: **Solids**

Sample ID : **ED-DU09_03 - Primary - Composite**

Sampled: **6/26/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L499866** 07/06/20 17:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	07/07/20 13:31	VIC	L500039
Aroclor 1221	<1.00	mg/Kg	1.00	10	07/07/20 13:31	VIC	L500039
Aroclor 1232	<1.00	mg/Kg	1.00	10	07/07/20 13:31	VIC	L500039
Aroclor 1242	<1.00	mg/Kg	1.00	10	07/07/20 13:31	VIC	L500039
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/07/20 13:31	VIC	L500039
Aroclor 1254	<1.00	mg/Kg	1.00	10	07/07/20 13:31	VIC	L500039
Aroclor 1260	<1.00	mg/Kg	1.00	10	07/07/20 13:31	VIC	L500039
Surrogate: Decachlorobiphenyl	119		Limits: 25-125%	10	07/07/20 13:31	VIC	L500039
Surrogate: Tetrachloro-m-xylene	106		Limits: 25-125%	10	07/07/20 13:31	VIC	L500039

**Qualifiers/
Definitions**

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	MQL	Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Original Report Date : 07/07/2020
Revised Report Date: 07/09/2020
Received : 06/27/2020

Report Number : **20-181-0088**

REPORT OF ANALYSIS

Lab No : **85475**

Matrix: **Solids**

Sample ID : **ED-DU09_03 - Tertiary - Composite**

Sampled: **6/26/2020 0:00**

Analytical Method: 8082A

Prep Batch(es): **L499866** 07/06/20 17:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	07/07/20 14:13	VIC	L500039
Aroclor 1221	<1.00	mg/Kg	1.00	10	07/07/20 14:13	VIC	L500039
Aroclor 1232	<1.00	mg/Kg	1.00	10	07/07/20 14:13	VIC	L500039
Aroclor 1242	<1.00	mg/Kg	1.00	10	07/07/20 14:13	VIC	L500039
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/07/20 14:13	VIC	L500039
Aroclor 1254	<1.00	mg/Kg	1.00	10	07/07/20 14:13	VIC	L500039
Aroclor 1260	<1.00	mg/Kg	1.00	10	07/07/20 14:13	VIC	L500039
Surrogate: Decachlorobiphenyl	44.3		Limits: 25-125%	10	07/07/20 14:13	VIC	L500039
Surrogate: Tetrachloro-m-xylene	95.5		Limits: 25-125%	10	07/07/20 14:13	VIC	L500039

**Qualifiers/
Definitions**

*
I

Outside QC Limit
Recovery out of range

DF Dilution Factor
MQL Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Original Report Date : 07/07/2020
Revised Report Date: 07/09/2020
Received : 06/27/2020

Report Number : **20-181-0088**

REPORT OF ANALYSIS

Lab No : **85502**

Matrix: **Aqueous**

Sample ID : **ED-DU09_03 - EB**

Sampled: **6/26/2020 12:04**

Analytical Method: 8082A

Prep Batch(es): **L499072** 06/30/20 12:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/01/20 02:35	VIC	L499310
Aroclor 1221	<0.50	µg/L	0.50	1	07/01/20 02:35	VIC	L499310
Aroclor 1232	<0.50	µg/L	0.50	1	07/01/20 02:35	VIC	L499310
Aroclor 1242	<0.50	µg/L	0.50	1	07/01/20 02:35	VIC	L499310
Aroclor 1248	<0.50	µg/L	0.50	1	07/01/20 02:35	VIC	L499310
Aroclor 1254	<0.50	µg/L	0.50	1	07/01/20 02:35	VIC	L499310
Aroclor 1260	<0.50	µg/L	0.50	1	07/01/20 02:35	VIC	L499310
Surrogate: Decachlorobiphenyl	43.7		Limits: 36-116%	1	07/01/20 02:35	VIC	L499310
Surrogate: Tetrachloro-m-xylene	67.2		Limits: 25-123%	1	07/01/20 02:35	VIC	L499310

**Qualifiers/
Definitions**

*
I

Outside QC Limit
Recovery out of range

DF Dilution Factor
MQL Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -
Information : Project No.: 172-367

Original Report Date : 07/07/2020
Revised Report Date: 07/09/2020
Received : 06/27/2020

Report Number : **20-181-0088**

REPORT OF ANALYSIS

Lab No : **87559**

Matrix: **Solids**

Sample ID : **ED-DU09_03 - Secondary - Composite Re-Run**

Sampled: **6/26/2020 0:00**

Analytical Method: 8082A

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	10	07/08/20 12:06	VIC	
Aroclor 1221	<1.00	mg/Kg	1.00	10	07/08/20 12:06	VIC	
Aroclor 1232	<1.00	mg/Kg	1.00	10	07/08/20 12:06	VIC	
Aroclor 1242	<1.00	mg/Kg	1.00	10	07/08/20 12:06	VIC	
Aroclor 1248	1.24	mg/Kg	1.00	10	07/08/20 12:06	VIC	
Aroclor 1254	<1.00	mg/Kg	1.00	10	07/08/20 12:06	VIC	
Aroclor 1260	<1.00	mg/Kg	1.00	10	07/08/20 12:06	VIC	

**Qualifiers/
Definitions**

*	Outside QC Limit	DF	Dilution Factor
I	Recovery out of range	MQL	Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-181-0088

QC Prep: L499072 **QC Analytical Batch(es):** L499310
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499072 Matrix: AQU
Associated Lab Samples: 85502

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1221	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1232	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1242	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1248	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1254	µg/L	< 0.200	0.200	06/30/20 23:15		
Aroclor 1260	µg/L	< 0.200	0.200	06/30/20 23:15		
Decachlorobiphenyl (S)				06/30/20 23:15	43.0	36-116
Tetrachloro-m-xylene (S)				06/30/20 23:15	46.5	25-123

Laboratory Control Sample & LCSD LCS-L499072 LCSD-L499072

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	3.70	4.38	74.0	87.6	44-116	16.8	20.0
Aroclor 1260	µg/L	5.00	3.33	4.90	66.6	98.0	43-129	38.1*	20.0
Decachlorobiphenyl (S)					38.5	58.1	36-116		
Tetrachloro-m-xylene (S)					44.8	57.0	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-181-0088

QC Prep: L499866 **QC Analytical Batch(es):** L500039
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499866 Matrix: SOL
Associated Lab Samples: 85421, 85448, 85475

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/07/20 12:35		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/07/20 12:35		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/07/20 12:35		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/07/20 12:35		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/07/20 12:35		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/07/20 12:35		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/07/20 12:35		
Decachlorobiphenyl (S)				07/07/20 12:35	80.5	25-125
Tetrachloro-m-xylene (S)				07/07/20 12:35	73.0	25-125

Laboratory Control Sample LCS-L499866

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.116	69.4	50-125
Aroclor 1260	mg/Kg	0.167	0.141	84.4	50-125
Decachlorobiphenyl (S)				73.5	25-125
Tetrachloro-m-xylene (S)				81.0	25-125

Matrix Spike & Matrix Spike Duplicate L 85421-MS-L499866 L 85421-MSD-L499866

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0667	0.0907	0.0987	1.04	1.11	1150*	1120*	40-140	6.5	30
Aroclor 1260	mg/Kg	<0.0667	0.0907	0.0987	0.149	0.269	164*	273*	40-140	57.4*	30
Decachlorobiphenyl (S)							70.0	39.8	25-125		
Tetrachloro-m-xylene (S)							103	108	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-181-0088**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #100

Shipping container/cooler uncompromised? Yes No

Number of coolers/boxes received

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of Custody (COC) present? Yes No

COC agrees with sample label(s)? Yes No

COC properly completed Yes No

Samples in proper containers? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test(s)? Yes No

All samples received within holding time? Yes No

Cooler temperature in compliance? Yes No

Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun. Yes No

Water - Sample containers properly preserved Yes No N/A

Water - VOA vials free of headspace Yes No N/A

Trip Blanks received with VOAs Yes No N/A

Soil VOA method 5035 – compliance criteria met Yes No N/A

High concentration container (48 hr) Low concentration EnCore samplers (48 hr)
 High concentration pre-weighed (methanol -14 d) Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included? Yes No

Comments:

Signature:

Date & Time:



Kit ID:	140121
Initiated By:	Andrea Brownfield
Initiated Date:	6/23/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-181-0088
 25226
 06-29-2020
 16:52:15

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	0948	ED-DU09_03-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien						
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		6/26	1600			
			Relinquished by: (SIGNATURE)						
			Relinquished by: (SIGNATURE)						

Blank/Cooler Temp: 1.4°C & 1.1°C
 Custody Seals received on: [Signature]
 Cooler(s)/Container(s): [Signature]

6/27/20
 800



Kit ID:	140121
Initiated By:	Andrea Brownfield
Initiated Date:	6/23/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-181-0088
 25226
 06-29-2020
 16:52:15
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	1052	ED-DU09_03-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-04S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	0948	ED-DU09_03-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

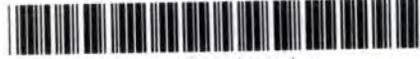
For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments Custody Seals received on:	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/26	Time 1600	Received by: (SIGNATURE)	Date	Time
Blank/ Cooler Temp 1.4 °C	Cooler(s) 1.1 °C	Container(s) 1100	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time

[Handwritten signature] 6/27/20 800



Kit ID:	140121
Initiated By:	Andrea Brownfield
Initiated Date:	6/23/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



20-181-0088
 25226
 06-29-2020
 16:52:15

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	1025	ED-DU09_03-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien							
(Y/N)	(Y/N)	Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		6/26	1600				
			Relinquished by: (SIGNATURE)							
Blank/Cooler Temp			Relinquished by: (SIGNATURE)							
1.4°C @ 1.1°C										
T100										

[Handwritten signature] 6/27/20 800



Kit ID:	140121
Initiated By:	Andrea Brownfield
Initiated Date:	6/23/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-181-0088
 25226
 06-29-2020
 16:52:15
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_03	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	0948	ED-DU09_03-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien						
(Y/N)	(Y/N)	Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		6/26	1600			
			Relinquished by: (SIGNATURE)						
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
1.4°C @ 1.1°C									
T100 JB									

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 800



Kit ID: 140121
Initiated By: Andrea Brownfield
Initiated Date: 6/23/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-181-0088
 25226
 06-29-2020
 16:52:15
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	1052	ED-DU09_03-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments				
Ice Y/N	Custody Seals Y/N	Lab Comments Custody Seals received on:	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)		6/26	1600			
Blank/Cooler Temp 1.4°C @ 1.1°C T100	Cooler(s)/Container(s)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
								6/27/20	800



Kit ID: 140121
Initiated By: Andrea Brownfield
Initiated Date: 6/23/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-181-0088
25226
06-29-2020
16:52:15
Civil & Environmental Consultants, Inc.
Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_03	Project Number 172-307	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	1025	ED-DU09_03-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1052	ED-DU09_03-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/26	Time 1600	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 1.4°C & 1.1°C T100			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time

[Handwritten signature] 6/27/20
800



Kit ID:	140121
Initiated By:	Andrea Brownfield
Initiated Date:	6/23/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-181-0088
 25226
 06-29-2020 16:52:15
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	0948	ED-DU09_03-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien						
(Y/N)	(Y/N)	Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		6/26	1100			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp									
1.4 °C / 1.1 °C									
1100									



Kit ID: 140121
Initiated By: Andrea Brownfield
Initiated Date: 6/23/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-181-0088
 25226
 06-29-2020
 16:52:15

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_03	Project Number 172-307	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	1052	ED-DU09_03-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-22P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/26	Time 1600	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 1.4 °C @ 1.1 °C T100			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time



Kit ID: 140121
Initiated By: Andrea Brownfield
Initiated Date: 6/23/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-181-0088
 25226
 06-29-2020
 16:52:15
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	1015	ED-DU09_03-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU09_03-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU09_03-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1052	ED-DU09_03-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments				
Ice Y/N	Custody Seals Y/N	Lab Comments Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)		
Blank/Cooler Temp 1.4°C @ 1.1°C 1100 JAS			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)		

6/26 11:00
 [Signature]
 800



Kit ID: 140121
Initiated By: Andrea Brownfield
Initiated Date: 6/23/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-181-0088
 25226
 06-29-2020
 16:52:15

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/26	0948	ED-DU09_03-25P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-25S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-25T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0948	ED-DU09_03-26P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1025	ED-DU09_03-26S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1052	ED-DU09_03-26T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1204	ED-DU09_03-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien						
O/N	Y/N	Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Jenny O'Brien		6/26	1600			
			Relinquished by: (SIGNATURE)						
			Relinquished by: (SIGNATURE)						
Blank/Cooler Temp									
1.40°C @ 1.00 L									
T100									

[Handwritten signature and date: 6/27/20]

7/9/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-182-0097
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 6/30/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

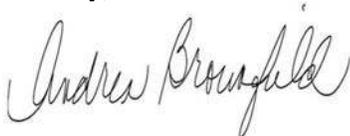
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-182-0097
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
85741	ED-DU07_03 - Primary - Composite	Solids	06/29/2020 08:52	06/30/2020
85762	ED-DU07_03 - Secondary - Composite	Solids	06/29/2020 09:12	06/30/2020
85783	ED-DU07_03 - Tertiary - Composite	Solids	06/29/2020 09:28	06/30/2020
85804	ED-DU07_03 - EB	Aqueous	06/29/2020 12:35	06/30/2020



Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-182-0097
Date: 7/9/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 85741 (ED-DU07_03 - Primary - Composite)

Analyte: Tetrachloro-m-xylene

QC Batch No: L500235/L500009

Surrogate(s) flagged for recovery outside QC limits in this project sample due to a required dilution. The dilution factor resulted in surrogate concentration(s) below the minimum detectable level. Batch QC samples (method blank and laboratory control samples) all showed surrogates within QC limits.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/09/2020

Received : 06/30/2020



Andrea R. Brownfield
Project manager

Report Number : **20-182-0097**

REPORT OF ANALYSIS

Lab No : **85741**

Matrix: **Solids**

Sample ID : **ED-DU07_03 - Primary - Composite**

Sampled: **6/29/2020 8:52**

Analytical Method: 8082A

Prep Batch(es): **L500009** 07/07/20 17:00

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/08/20 14:25	VIC	L500235
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/08/20 14:25	VIC	L500235
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/08/20 14:25	VIC	L500235
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/08/20 14:25	VIC	L500235
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/08/20 13:10	VIC	L500235
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/08/20 14:25	VIC	L500235
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/08/20 14:25	VIC	L500235
Surrogate: Decachlorobiphenyl	67.3		Limits: 25-125%	1	07/08/20 14:25	VIC	L500235
Surrogate: Tetrachloro-m-xylene	85.1		Limits: 25-125%	1	07/08/20 14:25	VIC	L500235

**Qualifiers/
Definitions**

DF Dilution Factor
MQL Method Quantitation Limit

I Recovery out of range

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/09/2020

Received : 06/30/2020



Andrea R. Brownfield
Project manager

Report Number : **20-182-0097**

REPORT OF ANALYSIS

Lab No : **85762**

Matrix: **Solids**

Sample ID : **ED-DU07_03 - Secondary - Composite**

Sampled: **6/29/2020 9:12**

Analytical Method: 8082A **Prep Batch(es):** L500009 07/07/20 17:00

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/08/20 14:47	VIC	L500235
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/08/20 14:47	VIC	L500235
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/08/20 14:47	VIC	L500235
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/08/20 14:47	VIC	L500235
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/08/20 13:31	VIC	L500235
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/08/20 14:47	VIC	L500235
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/08/20 14:47	VIC	L500235
Surrogate: Decachlorobiphenyl	69.1		Limits: 25-125%	1	07/08/20 14:47	VIC	L500235
Surrogate: Tetrachloro-m-xylene	84.3		Limits: 25-125%	1	07/08/20 14:47	VIC	L500235

**Qualifiers/
Definitions**

DF Dilution Factor
MQL Method Quantitation Limit

I Recovery out of range

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/09/2020
Received : 06/30/2020



Andrea R. Brownfield
Project manager

Report Number : **20-182-0097**

REPORT OF ANALYSIS

Lab No : **85783**

Matrix: **Solids**

Sample ID : **ED-DU07_03 - Tertiary - Composite**

Sampled: **6/29/2020 9:28**

Analytical Method: 8082A **Prep Batch(es):** L500009 07/07/20 17:00

Prep Method: 3540C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/08/20 15:08	VIC	L500235
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/08/20 15:08	VIC	L500235
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/08/20 15:08	VIC	L500235
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/08/20 15:08	VIC	L500235
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/08/20 15:08	VIC	L500235
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/08/20 15:08	VIC	L500235
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/08/20 15:08	VIC	L500235
Surrogate: Decachlorobiphenyl	65.8		Limits: 25-125%	1	07/08/20 15:08	VIC	L500235
Surrogate: Tetrachloro-m-xylene	83.9		Limits: 25-125%	1	07/08/20 15:08	VIC	L500235

**Qualifiers/
Definitions**

DF Dilution Factor
MQL Method Quantitation Limit

I Recovery out of range

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/09/2020

Received : 06/30/2020



Andrea R. Brownfield
Project manager

Report Number : **20-182-0097**

REPORT OF ANALYSIS

Lab No : **85804**

Matrix: **Aqueous**

Sample ID : **ED-DU07_03 - EB**

Sampled: **6/29/2020 12:35**

Analytical Method: 8082A **Prep Batch(es):** L499771 07/06/20 13:50

Prep Method: 3510C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/07/20 04:30	VIC	L500037
Aroclor 1221	<0.50	µg/L	0.50	1	07/07/20 04:30	VIC	L500037
Aroclor 1232	<0.50	µg/L	0.50	1	07/07/20 04:30	VIC	L500037
Aroclor 1242	<0.50	µg/L	0.50	1	07/07/20 04:30	VIC	L500037
Aroclor 1248	<0.50	µg/L	0.50	1	07/07/20 04:30	VIC	L500037
Aroclor 1254	<0.50	µg/L	0.50	1	07/07/20 04:30	VIC	L500037
Aroclor 1260	<0.50	µg/L	0.50	1	07/07/20 04:30	VIC	L500037
Surrogate: Decachlorobiphenyl	52.9		Limits: 36-116%	1	07/07/20 04:30	VIC	L500037
Surrogate: Tetrachloro-m-xylene	73.7		Limits: 25-123%	1	07/07/20 04:30	VIC	L500037

**Qualifiers/
Definitions**

DF Dilution Factor
ML Method Quantitation Limit

I Recovery out of range

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-182-0097

QC Prep: L499771 **QC Analytical Batch(es):** L500037
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L499771 Matrix: AQU
 Associated Lab Samples: 85804

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	07/07/20 00:15		
Aroclor 1221	µg/L	< 0.200	0.200	07/07/20 00:15		
Aroclor 1232	µg/L	< 0.200	0.200	07/07/20 00:15		
Aroclor 1242	µg/L	< 0.200	0.200	07/07/20 00:15		
Aroclor 1248	µg/L	< 0.200	0.200	07/07/20 00:15		
Aroclor 1254	µg/L	< 0.200	0.200	07/07/20 00:15		
Aroclor 1260	µg/L	< 0.200	0.200	07/07/20 00:15		
Decachlorobiphenyl (S)				07/07/20 00:15	59.3	36-116
Tetrachloro-m-xylene (S)				07/07/20 00:15	58.3	25-123

Laboratory Control Sample & LCSD LCS-L499771 LCSD-L499771

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	4.06	4.85	81.2	97.0	44-116	17.7	20.0
Aroclor 1260	µg/L	5.00	3.85	4.36	77.0	87.2	43-129	12.4	20.0
Decachlorobiphenyl (S)					55.6	62.8	36-116		
Tetrachloro-m-xylene (S)					55.3	64.8	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-182-0097

QC Prep: L500009 **QC Analytical Batch(es):** L500235
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L500009 Matrix: SOL
Associated Lab Samples: 85741, 85762, 85783

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/08/20 12:27		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/08/20 12:27		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/08/20 12:27		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/08/20 12:27		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/08/20 12:27		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/08/20 12:27		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/08/20 12:27		
Decachlorobiphenyl (S)				07/08/20 12:27	75.5	25-125
Tetrachloro-m-xylene (S)				07/08/20 12:27	84.5	25-125

Laboratory Control Sample LCS-L500009

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.139	83.2	50-125
Aroclor 1260	mg/Kg	0.167	0.131	78.4	50-125
Decachlorobiphenyl (S)				79.0	25-125
Tetrachloro-m-xylene (S)				89.5	25-125

Matrix Spike & Matrix Spike Duplicate L 85741-MS-L500009 L 85741-MSD-L500009

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.112	0.102	0.478	0.330	427*	324*	40-140	36.6*	30
Aroclor 1260	mg/Kg	<0.0066	0.112	0.102	0.364	0.0840	325*	82.3	40-140	125*	30
Decachlorobiphenyl (S)							73.6	66.0	25-125		
Tetrachloro-m-xylene (S)							I*	83.7	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-182-0097**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #101

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	140163
Initiated By:	Andrea Brownfield
Initiated Date:	6/24/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-182-0097
 25226
 06-30-2020
 14:00:09

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU07_03	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/29	0852	ED-DU07_03-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals received on:		
Ice	Custody Seals	Jenny O'Brien			Cooler(s)/Container(s)		
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/29	1730			
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
1.1°C TLOI							
2.3°C TP							
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time
						6/30/20	08:45



Kit ID: 140163
Initiated By: Andrea Brownfield
Initiated Date: 6/24/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-182-0097
 25226
 06-30-2020
 14:00:09

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU07_03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordbrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/29	0928	ED-DU07_03-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice Q/N	Custody Seals Q/N	Lab Comments			Custody Seals received on: Cooler(s)/Container(s)					
Blank/Cooler Temp 1.1°C T101 2.3°C TP			Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)		Date	Time
					6/29	1730				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time

[Signature] 6/30/20
 08:45



Kit ID:	140163
Initiated By:	Andrea Brownfield
Initiated Date:	6/24/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-182-0097
 25226
 06-30-2020
 14:00:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/29	0912	ED-DU07_03-06S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0928	ED-DU07_03-08T	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s)/Container(s)				
O/N	O/N		Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date	Time
					6/29	1730			
			Relinquished by: (SIGNATURE)						
			Relinquished by: (SIGNATURE)						
(Blank) Cooler Temp					4/ [Signature] 6/30/20				
1.1°C T101					08:45				
2.3°C TP									



Kit ID: 140163
Initiated By: Andrea Brownfield
Initiated Date: 6/24/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-182-0097
 25226
 06-30-2020
 14:00:09

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU07_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/29	0852	ED-DU07_03-09P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments				Custody Seals	
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp 1.1°C T101 2.3°C TP			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time

6/30/20
08:45



Kit ID:	140163
Initiated By:	Andrea Brownfield
Initiated Date:	6/24/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-182-0097
 25226
 06-30-2020
 14:00:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/29	0928	ED-DU07_03-11T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)	
(Y/N)	(Y/N)	Relinquished by: (SIGNATURE)	Date	Time
		Jenny O'Brien	6/29	1730
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time
1.1°C T101 2.3°C TP				
		Relinquished by: (SIGNATURE)	Date	Time
			6/30/20	08:45



Kit ID:	140163
Initiated By:	Andrea Brownfield
Initiated Date:	6/24/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-182-0097
 25226
 06-30-2020
 14:00:09

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU07_03	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/29	0912	ED-DU07_03-14S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	0928	ED-DU07_03-16T	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien	received on: Cooler(s)/Container(s)			
Y/N	Y/N		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
			Jenny O'Brien	6/29	1730		
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

Blank/Cooler Temp
 1.1°C T101
 2.3°C TP

[Signature] 6/30/20
 08:45



Kit ID: 140163
Initiated By: Andrea Brownfield
Initiated Date: 6/24/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-182-0097
 25226
 06-30-2020
 14:00:09

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU07_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/29	0852	ED-DU07_03-17P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	0912	ED-DU07_03-19S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments received on: Cooler(s)/Container(s)	
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 6/29	Time 1730
Lab Comments		Relinquished by: (SIGNATURE)	Date	Time
Blank/Cooler Temp 1.1°C T101 2.3°C TP		Relinquished by: (SIGNATURE)	Date	Time

[Signature] 6/30/20
 08:45



Kit ID:	140163
Initiated By:	Andrea Brownfield
Initiated Date:	6/24/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-182-0097
 25226
 06-30-2020
 14:00:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU07_03	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
6/29	0928	ED-DU07_03-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	0852	ED-DU07_03-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0912	ED-DU07_03-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	0928	ED-DU07_03-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1235	ED-DU07_03-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals
 received on:
Cooler(s)/Container(s)

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice Y/N Custody Seals Y/N Blank/Cooler Temp 1.1°C T10 2.3°C TP	Lab Comments	Jenny O'Brien								
		Relinquished by: (SIGNATURE)			Date	Time	Received by: (SIGNATURE)		Date	Time
		Jenny O'Brien			6/29	1730				
		Relinquished by: (SIGNATURE)			Date	Time	Received by: (SIGNATURE)		Date	Time
Relinquished by: (SIGNATURE)			Date	Time	Received by: (SIGNATURE)		Date	Time		
					J. O'Brien		6/30/20	08:43		



7/10/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-188-0110
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 7/6/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2020
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-188-0110
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
85001	ED-DU04_03 - Primary - Composite	Solids	07/02/2020 13:00	07/06/2020
85034	ED-DU04_03 - Secondary - Composite	Solids	07/02/2020 13:05	07/06/2020
85067	ED-DU04_03 - Tertiary - Composite	Solids	07/02/2020 13:10	07/06/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/10/2020
Received : 07/06/2020



Andrea R. Brownfield
Project manager

Report Number : **20-188-0110**

REPORT OF ANALYSIS

Lab No : **85001**

Matrix: **Solids**

Sample ID : **ED-DU04_03 - Primary - Composite**

Sampled: **7/2/2020 13:00**

Analytical Method: 8082A

Prep Batch(es): **L500481** 07/09/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/10/20 13:38	VIC	L500702
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/10/20 13:38	VIC	L500702
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/10/20 13:38	VIC	L500702
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/10/20 13:38	VIC	L500702
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/10/20 13:38	VIC	L500702
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/10/20 13:38	VIC	L500702
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/10/20 13:38	VIC	L500702
Surrogate: Decachlorobiphenyl	84.7		Limits: 25-125%	1	07/10/20 13:38	VIC	L500702
Surrogate: Tetrachloro-m-xylene	80.6		Limits: 25-125%	1	07/10/20 13:38	VIC	L500702

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/10/2020
Received : 07/06/2020



Andrea R. Brownfield
Project manager

Report Number : **20-188-0110**

REPORT OF ANALYSIS

Lab No : **85034**

Matrix: **Solids**

Sample ID : **ED-DU04_03 - Secondary - Composite**

Sampled: **7/2/2020 13:05**

Analytical Method: 8082A

Prep Batch(es): **L500481** 07/09/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/10/20 13:59	VIC	L500702
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/10/20 13:59	VIC	L500702
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/10/20 13:59	VIC	L500702
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/10/20 13:59	VIC	L500702
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/10/20 13:59	VIC	L500702
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/10/20 13:59	VIC	L500702
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/10/20 13:59	VIC	L500702
Surrogate: Decachlorobiphenyl	83.6		Limits: 25-125%	1	07/10/20 13:59	VIC	L500702
Surrogate: Tetrachloro-m-xylene	76.6		Limits: 25-125%	1	07/10/20 13:59	VIC	L500702

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/10/2020
Received : 07/06/2020



Andrea R. Brownfield
Project manager

Report Number : **20-188-0110**

REPORT OF ANALYSIS

Lab No : **85067**

Matrix: **Solids**

Sample ID : **ED-DU04_03 - Tertiary - Composite**

Sampled: **7/2/2020 13:10**

Analytical Method: 8082A

Prep Batch(es): **L500481** 07/09/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/10/20 14:20	VIC	L500702
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/10/20 14:20	VIC	L500702
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/10/20 14:20	VIC	L500702
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/10/20 14:20	VIC	L500702
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/10/20 13:16	VIC	L500702
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/10/20 14:20	VIC	L500702
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/10/20 14:20	VIC	L500702
Surrogate: Decachlorobiphenyl	77.1		Limits: 25-125%	1	07/10/20 14:20	VIC	L500702
Surrogate: Tetrachloro-m-xylene	78.4		Limits: 25-125%	1	07/10/20 14:20	VIC	L500702

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-188-0110

QC Prep: L500481 **QC Analytical Batch(es):** L500702
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L500481 Matrix: SOL
 Associated Lab Samples: 85001, 85034, 85067

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/10/20 11:51		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/10/20 11:51		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/10/20 11:51		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/10/20 11:51		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/10/20 11:51		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/10/20 11:51		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/10/20 11:51		
Decachlorobiphenyl (S)				07/10/20 11:51	85.0	25-125
Tetrachloro-m-xylene (S)				07/10/20 11:51	78.0	25-125

Laboratory Control Sample LCS-L500481

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.206	123	50-125
Aroclor 1260	mg/Kg	0.167	0.162	97.0	50-125
Decachlorobiphenyl (S)				93.5	25-125
Tetrachloro-m-xylene (S)				84.5	25-125

Matrix Spike & Matrix Spike Duplicate L 85001-MS-L500481 L 85001-MSD-L500481

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.101	0.105	0.167	0.129	165*	123	40-140	25.6	30
Aroclor 1260	mg/Kg	<0.0066	0.101	0.105	0.101	0.0949	100	90.3	40-140	6.2	30
Decachlorobiphenyl (S)							84.2	74.2	25-125		
Tetrachloro-m-xylene (S)							81.9	80.9	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-188-0110**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #102

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-188-0110
 25226
 07-06-2020
 14:23:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1300	ED-DU04_03-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1305	ED-DU04_03-03S	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on: Cooler(s)/Container(s)					
(Y/N)	(Y/N)	* Approval to analyze samples out of temp per Garrett Welch. (TP)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		7/2	1600				
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
23.4°C T102 24.4°C (TP)							A. Phillips		7/6/20	09:30



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-188-0110
 25226
 07-06-2020
 14:23:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_03	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1310	ED-DU04_03-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1300	ED-DU04_03-06P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		7/2 1600					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
							[Signature]		7/6/20 09:30	



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-188-0110
 25226
 07-06-2020
 14:23:09

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - iSM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_03	177-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1305	ED-DU04_03-06S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1310	ED-DU04_03-08T	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:			
Y/N	Y/N		Relinquished by: (SIGNATURE)		Cooler(s)/Container(s)	Received by: (SIGNATURE)		Date Time
			Jenny O'Brien		7/2	1100		
			Relinquished by: (SIGNATURE)					
			Relinquished by: (SIGNATURE)					
Blank/Cooler Temp								
23.4°C (TP)								
24.4°C (TP)								

J. O'Brien
 7/6/20
 09:30



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTOD

20-188-0110
 25226
 07-06-2020
 14:23:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU04_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1300	ED-DU04_03-09P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1305	ED-DU04_03-11S	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments		Custody Seals	
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 7/2	Time 1600	received on: Cooler(s)/Container(s)	
Blank/Cooler Temp 23.4°C T102 24.4°C T10		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

J. P. [Signature] 7/6/20 09:30



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-188-0110
 25226
 07-06-2020
 14:23:09

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU04_03	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1310	ED-DU04_03-11T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1300	ED-DU04_03-14P	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)			
O/N	O/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	7/2	1600		
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

Blank/Cooler Temp
 23.4°C (H02)
 24.4°C (TP)

[Signature] 7/2/20
 09:30



Kit ID: 140436
Initiated By: Andrea Brownfield
Initiated Date: 6/29/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-188-0110
 25226
 07-06-2020
 14:23:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU04_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1305	ED-DU04_03-14S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1310	ED-DU04_03-16T	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien	Client Remarks/Comments				Custody Seals received on:	
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 7/2	Time 1600	Received by: (SIGNATURE)	Date	Time	Cooler(s)/Container(s)
Blank/Cooler Temp 23.4°C TP 24.4°C TP			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	
			Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date	Time	

7/6/20
09:30



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-188-0110
 25226
 07-06-2020
 14:23:09

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1300	ED-DU04_03-17P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	Jenny O'Brien	received on: Cooler(s)/Container(s)			
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	7/2	1600		
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
Blank/Cooler Temp						
23.4°C T102						
24.4°C TP						

[Signature] 7/6/20
 09:30



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-188-0110
 25226
 07-06-2020
 14:23:09

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU04_03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1310	ED-DU04_03-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1300	ED-DU04_03-22P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Jenny O'Brien		Client Remarks/Comments					
Ice O/N	Custody Seals O/N	Lab Comments Blank/Cooler Temp 23.4°C TIDZ 24.4°C TP	Relinquished by: (SIGNATURE) Jenny O'Brien		Date 7/2	Time 1600	Received by: (SIGNATURE)		Date 7/6/20	Time 09:30
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time

Custody Seals
 received on:
 Cooler(s)/Container(s)



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-188-0110
 25226
 07-06-2020
 14:23:09

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_03	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1305	ED-DU04_03-22S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
✓	1310	ED-DU04_03-24T	Solids	✓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				Custody Seals	
Ice	Custody Seals	Lab Comments	Jenny O'Brien						received on:	
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			Jenny O'Brien		7/2	1600				
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
Blank/Cooler Temp									Cooler(s)/Container(s)	
24.4°C T102									7/6/20	
23.4°C T101									09:30	



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



20-188-0110
 25226
 07-06-2020
 14:23:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_03	172-3e7		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1300	ED-DU04_03-25P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-25S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-25T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-26P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-26S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-26T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-27P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-27S	Solids		1	Glass - 4oz	NONE	8082 - PCBs Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Jenny O'Brien		received on: Cooler(s)/Container(s)				
<input checked="" type="checkbox"/> Y/N	<input checked="" type="checkbox"/> Y/N		Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)						
			Relinquished by: (SIGNATURE)						
Blank/Cooler Temp 23.4°C T102 24.4°C T10					7/6/20				



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-188-0110
 25226
 07-06-2020
 14:23:09

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_03	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1310	ED-DU04_03-27T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-28P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-28S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-28T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-29P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-29S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-29T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1300	ED-DU04_03-30P	Solids	↓	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:			
Y/N	Y/N		Relinquished by: (SIGNATURE) Jenny O'Brien		Date	Time	Received by: (SIGNATURE) Cooler(s) Container(s)	
					7/2	1600		
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
							7/6/20 09:30	



Kit ID:	140436
Initiated By:	Andrea Brownfield
Initiated Date:	6/29/2020
Project Comment	
	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-188-0110
 25226
 07-06-2020
 14:23:09
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU04_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/2	1305	ED-DU04_03-30S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-30T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-31P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-31S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1310	ED-DU04_03-31T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1300	ED-DU04_03-32P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1305	ED-DU04_03-32S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1310	ED-DU04_03-32T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Jenny O'Brien		Custody Seals received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		7/2 1600					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
							A. Phillips		7/6/20 09:30	

7/13/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-188-0111
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 7/6/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

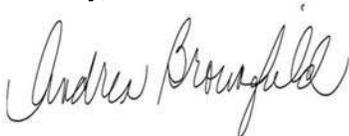
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2020
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2021
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020



Sample Summary Table

Report Number: 20-188-0111
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.:

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
85102	ED-DU04_03 - EB	Aqueous	07/02/2020 13:58	07/06/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.:

Report Date : 07/13/2020

Received : 07/06/2020



Andrea R. Brownfield
Project manager

Report Number : **20-188-0111**

REPORT OF ANALYSIS

Lab No : **85102**

Matrix: **Aqueous**

Sample ID : **ED-DU04_03 - EB**

Sampled: **7/2/2020 13:58**

Analytical Method: 8082A

Prep Batch(es): **L500400** 07/09/20 11:45

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/11/20 00:23	VIC	L500943
Aroclor 1221	<0.50	µg/L	0.50	1	07/11/20 00:23	VIC	L500943
Aroclor 1232	<0.50	µg/L	0.50	1	07/11/20 00:23	VIC	L500943
Aroclor 1242	<0.50	µg/L	0.50	1	07/11/20 00:23	VIC	L500943
Aroclor 1248	<0.50	µg/L	0.50	1	07/11/20 00:23	VIC	L500943
Aroclor 1254	<0.50	µg/L	0.50	1	07/11/20 00:23	VIC	L500943
Aroclor 1260	<0.50	µg/L	0.50	1	07/11/20 00:23	VIC	L500943
Surrogate: Decachlorobiphenyl	72.2		Limits: 36-116%	1	07/11/20 00:23	VIC	L500943
Surrogate: Tetrachloro-m-xylene	75.3		Limits: 25-123%	1	07/11/20 00:23	VIC	L500943

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-188-0111

QC Prep: L500400 **QC Analytical Batch(es):** L500943
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L500400 Matrix: AQU
Associated Lab Samples: 85102

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	07/10/20 23:18		
Aroclor 1221	µg/L	< 0.200	0.200	07/10/20 23:18		
Aroclor 1232	µg/L	< 0.200	0.200	07/10/20 23:18		
Aroclor 1242	µg/L	< 0.200	0.200	07/10/20 23:18		
Aroclor 1248	µg/L	< 0.200	0.200	07/10/20 23:18		
Aroclor 1254	µg/L	< 0.200	0.200	07/10/20 23:18		
Aroclor 1260	µg/L	< 0.200	0.200	07/10/20 23:18		
Decachlorobiphenyl (S)				07/10/20 23:18	66.0	36-116
Tetrachloro-m-xylene (S)				07/10/20 23:18	65.1	25-123

Laboratory Control Sample & LCSD LCS-L500400 LCSD-L500400

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	4.00	4.43	80.0	88.6	44-116	10.2	20.0
Aroclor 1260	µg/L	5.00	4.40	4.93	88.0	98.6	43-129	11.3	20.0
Decachlorobiphenyl (S)					65.8	80.6	36-116		
Tetrachloro-m-xylene (S)					59.3	64.1	25-123		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-188-0111**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #102

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

7/16/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-191-0151
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 7/9/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

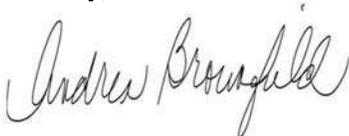
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2021
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2021
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-191-0151
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
87958	ED-DU02_03 - Primary - Composite	Solids	07/08/2020 10:00	07/09/2020
87985	ED-DU02_03 - Secondary - Composite	Solids	07/08/2020 10:15	07/09/2020
88012	ED-DU02_03 - Tertiary - Composite	Solids	07/08/2020 10:30	07/09/2020
88039	ED-DU02_03 - EB	Aqueous	07/08/2020 11:30	07/09/2020

Client: Civil & Environmental Consultants, Inc.
Project: Elliott Ditch Remediation Confirmation -
Lab Report Number: 20-191-0151
Date: 7/16/2020

CASE NARRATIVE

Polychlorinated Biphenyls (PCB's) Method 8082A

Sample 88039 (ED-DU02_03 - EB)

Analyte: Decachlorobiphenyl

QC Batch No: L501583/L501355

Surrogate(s) were flagged for recoveries in the associated project sample. During the extraction step, the extraction technician noted that a significant emulsion formed. Batch QC samples (Method Blank and Laboratory Control Samples) all showed surrogate recoveries within QC limits, indicating that the biased recoveries were due to the sample matrix.

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/16/2020
Received : 07/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-191-0151**

REPORT OF ANALYSIS

Lab No : **87958**

Matrix: **Solids**

Sample ID : **ED-DU02_03 - Primary - Composite**

Sampled: **7/8/2020 10:00**

Analytical Method: 8082A **Prep Batch(es):** **L501186** 07/14/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/15/20 15:12	VIC	L501580
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/15/20 15:12	VIC	L501580
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/15/20 15:12	VIC	L501580
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/15/20 15:12	VIC	L501580
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/15/20 15:12	VIC	L501580
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/15/20 15:12	VIC	L501580
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/15/20 15:12	VIC	L501580
Surrogate: Decachlorobiphenyl	69.5		Limits: 25-125%	1	07/15/20 15:12	VIC	L501580
Surrogate: Tetrachloro-m-xylene	79.1		Limits: 25-125%	1	07/15/20 15:12	VIC	L501580

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/16/2020
Received : 07/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-191-0151**

REPORT OF ANALYSIS

Lab No : **87985**

Matrix: **Solids**

Sample ID : **ED-DU02_03 - Secondary - Composite**

Sampled: **7/8/2020 10:15**

Analytical Method: 8082A

Prep Batch(es): **L501186** 07/14/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/15/20 14:51	VIC	L501580
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/15/20 14:51	VIC	L501580
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/15/20 14:51	VIC	L501580
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/15/20 14:51	VIC	L501580
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/15/20 14:51	VIC	L501580
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/15/20 14:51	VIC	L501580
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/15/20 14:51	VIC	L501580
Surrogate: Decachlorobiphenyl	72.6		Limits: 25-125%	1	07/15/20 14:51	VIC	L501580
Surrogate: Tetrachloro-m-xylene	82.6		Limits: 25-125%	1	07/15/20 14:51	VIC	L501580

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/16/2020
Received : 07/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-191-0151**

REPORT OF ANALYSIS

Lab No : **88012**

Matrix: **Solids**

Sample ID : **ED-DU02_03 - Tertiary - Composite**

Sampled: **7/8/2020 10:30**

Analytical Method: 8082A **Prep Batch(es):** **L501186** 07/14/20 16:20

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/15/20 15:33	VIC	L501580
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/15/20 15:33	VIC	L501580
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/15/20 15:33	VIC	L501580
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/15/20 15:33	VIC	L501580
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/15/20 15:33	VIC	L501580
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/15/20 15:33	VIC	L501580
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/15/20 15:33	VIC	L501580
Surrogate: Decachlorobiphenyl	68.9		Limits: 25-125%	1	07/15/20 15:33	VIC	L501580
Surrogate: Tetrachloro-m-xylene	76.7		Limits: 25-125%	1	07/15/20 15:33	VIC	L501580

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/16/2020

Received : 07/09/2020



Andrea R. Brownfield
Project manager

Report Number : **20-191-0151**

REPORT OF ANALYSIS

Lab No : **88039**

Matrix: **Aqueous**

Sample ID : **ED-DU02_03 - EB**

Sampled: **7/8/2020 11:30**

Analytical Method: 8082A **Prep Batch(es):** L501355 07/15/20 11:15

Prep Method: 3510C

Test	Results	Units	ML	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/16/20 04:15	VIC	L501583
Aroclor 1221	<0.50	µg/L	0.50	1	07/16/20 04:15	VIC	L501583
Aroclor 1232	<0.50	µg/L	0.50	1	07/16/20 04:15	VIC	L501583
Aroclor 1242	<0.50	µg/L	0.50	1	07/16/20 04:15	VIC	L501583
Aroclor 1248	<0.50	µg/L	0.50	1	07/16/20 04:15	VIC	L501583
Aroclor 1254	<0.50	µg/L	0.50	1	07/16/20 04:15	VIC	L501583
Aroclor 1260	<0.50	µg/L	0.50	1	07/16/20 04:15	VIC	L501583
Surrogate: Decachlorobiphenyl	25.0 *		Limits: 36-116%	1	07/16/20 04:15	VIC	L501583
Surrogate: Tetrachloro-m-xylene	66.8		Limits: 25-123%	1	07/16/20 04:15	VIC	L501583

**Qualifiers/
Definitions**

* Outside QC Limit
MQL Method Quantitation Limit

DF Dilution Factor

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-191-0151

QC Prep: L501186 **QC Analytical Batch(es):** L501580
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L501186 Matrix: SOL
 Associated Lab Samples: 87958, 87985, 88012

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/15/20 12:47		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/15/20 12:47		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/15/20 12:47		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/15/20 12:47		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/15/20 12:47		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/15/20 12:47		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/15/20 12:47		
Decachlorobiphenyl (S)				07/15/20 12:47	92.0	25-125
Tetrachloro-m-xylene (S)				07/15/20 12:47	75.0	25-125

Laboratory Control Sample LCS-L501186

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.145	86.8	50-125
Aroclor 1260	mg/Kg	0.167	0.151	90.4	50-125
Decachlorobiphenyl (S)				86.5	25-125
Tetrachloro-m-xylene (S)				85.0	25-125

Matrix Spike & Matrix Spike Duplicate L 87958-MS-L501186 L 87958-MSD-L501186

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.102	0.104	0.160	0.204	157*	196*	40-140	24.1	30
Aroclor 1260	mg/Kg	<0.0066	0.102	0.104	0.0740	0.0923	72.5	88.7	40-140	22.0	30
Decachlorobiphenyl (S)							63.9	73.5	25-125		
Tetrachloro-m-xylene (S)							79.8	83.2	25-125		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-191-0151

QC Prep: L501355 **QC Analytical Batch(es):** L501583
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L501355 Matrix: AQU
Associated Lab Samples: 88039

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1221	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1232	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1242	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1248	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1254	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1260	µg/L	< 0.200	0.200	07/16/20 02:50		
Decachlorobiphenyl (S)				07/16/20 02:50	74.1	36-116
Tetrachloro-m-xylene (S)				07/16/20 02:50	64.8	25-123

Laboratory Control Sample & LCSD LCS-L501355 LCSD-L501355

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.01	4.86	100	97.2	44-116	3.0	20.0
Aroclor 1260	µg/L	5.00	5.30	5.41	106	108	43-129	2.0	20.0
Decachlorobiphenyl (S)					92.5	102	36-116		
Tetrachloro-m-xylene (S)					60.6	63.1	25-123		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-191-0151**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #102

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



Kit ID: 140563
Initiated By: Andrea Brownfield
Initiated Date: 7/1/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1000	ED-DU02_03-01P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-01S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-01T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1006	ED-DU02_03-02P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-02S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1036	ED-DU02_03-02T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1006	ED-DU02_03-03P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
↓	1015	ED-DU02_03-03S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Garrett Welch		Client Remarks/Comments				Custody Seals received on:	
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/Cooler Temp 2.8°C T102 1.6°C TP	Relinquished by: (SIGNATURE) 	Date Time 7/9/20 1500	Received by: (SIGNATURE) 			Date Time 7/9/20 0827		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)			Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)			Date Time		
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)			Date Time		



Kit ID:	140563
Initiated By:	Andrea Brownfield
Initiated Date:	7/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-191-0151
 25226
 07-09-2020
 18:05:55

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02_03	17Z-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	ARCONC - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1030	ED-DU02_03-03T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-04P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-04S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-04T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-05P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-05S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-05T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-06P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Garrett Welch		received on: Cooler(s)/Container(s)			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
			<i>[Signature]</i>	7/8/20 1500				
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
Blank/Cooler Temp			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)	Date Time		
2.8°C T102								
1.6°C <i>[Signature]</i>								

[Signature] 7/9/20
0827



Kit ID: 140563
Initiated By: Andrea Brownfield
Initiated Date: 7/1/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-191-0151
 25226
 07-09-2020
 18:05:55

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_03	Project Number 172-367	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # ARCONIC - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1015	ED-DU02_03-06S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-06T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-07P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-07S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-07T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-08P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-08S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-08T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Garrett Welch		Client Remarks/Comments					
Ice Y/N	Custody Seals Y/N	Lab Comments Blank/ Cooler Temp 2.8°C T102 1.6°C TP	Relinquished by: (SIGNATURE) <i>[Signature]</i>		Date	Time	Received by: (SIGNATURE) <i>[Signature]</i>		Date	Time
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			
			Relinquished by: (SIGNATURE)				Received by: (SIGNATURE)			

Custody Seals

received on:

Cooler(s)/Container(s)

7/9/20
0827



Kit ID:	140563
Initiated By:	Andrea Brownfield
Initiated Date:	7/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-191-0151
 25226
 07-09-2020
 18:05:55
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont.	Container Type	Preservation	Analyses
7/8/20	1000	ED-DU02_03-09P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-09S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-09T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-10P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-10S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-10T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-11P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-11S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Garrett Weiler		Custody Seals received on:					
Q/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			[Signature]		7/20	1500	[Signature]			
			Relinquished by: (SIGNATURE)				[Signature]			
			Relinquished by: (SIGNATURE)				[Signature]		7/9/20	
Blank/Cooler Temp										
2.8°C T102										
1.6°C TP										



Kit ID:	140563
Initiated By:	Andrea Brownfield
Initiated Date:	7/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-191-0151
 25226
 07-09-2020
 18:05:55
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - (SM)

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcom - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1030	ED-DU02_03-11T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-12P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-12S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-12T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-13P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-13S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-13T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-14P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Garrett Welch		Custody Seals received on: Cooler(s)/Container(s)				
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
					7/8/20	1500			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
								7/9/20	08:27



Kit ID:	140563
Initiated By:	Andrea Brownfield
Initiated Date:	7/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-191-0151
 25226
 07-09-2020
 18:05:55

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	ARCONK - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1015	ED-DU02_03-14S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-14T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-15P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-15S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-15T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-16P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-16S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-16T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Garrett Welch		Custody Seals received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp 2.8°C T102 1.6°C T10							7/19/20 08:27			



Kit ID:	140563
Initiated By:	Andrea Brownfield
Initiated Date:	7/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-191-0151
 25226
 07-09-2020
 18:05:55

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1000	ED-DU02_03-17P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-17S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-17T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-18P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-18S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-18T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-19P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-19S	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Garrett Welch		Custody Seals received on:			
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	
Blank/Cooler Temp								
2.8°C T102								
1.6°C (TP)								
					7/9/20			
					0827			



Kit ID:	140563
Initiated By:	Andrea Brownfield
Initiated Date:	7/1/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-191-0151
 25226
 07-09-2020
 18:05:55
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU02_03	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1030	ED-DU02_03-19T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-20P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-20S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-20T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-21P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-21S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-21T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-22P	Solids		1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Garrett Welch		received on: Cooler(s)/Container(s)				
(Y/N)	(Y/N)		Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			[Signature]		7/8/20	1:52			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)				[Signature]	7/9/20	
Blank/Cooler Temp									
2.8°C T102									
1.6°C (TP)									

0827



Kit ID: 140563
Initiated By: Andrea Brownfield
Initiated Date: 7/1/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-191-0151
 25226
 07-09-2020
 18:05:55

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1015	ED-DU02_03-22S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-22T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-23P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-23S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-23T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-24P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-24S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-24T	Solids		1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print) Garrett Welch		Client Remarks/Comments			
Ice Y/N	Custody Seals Y/N	Lab Comments	Relinquished by: (SIGNATURE) <i>[Signature]</i>	Date Time 7/8/20 1500	Custody Seals received on: Cooler(s)/Container(s)			Date Time
Blank/Cooler Temp 2.8°C T102 1.6°C TP			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE) <i>[Signature]</i>			Date Time 7/9/20 0827
			Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)			Date Time



Kit ID: 140563
Initiated By: Andrea Brownfield
Initiated Date: 7/1/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-191-0151
 25226
 07-09-2020
 18:05:55

Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU02_03	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/8/20	1000	ED-DU02_03-25P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-25S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-25T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU02_03-26P	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1015	ED-DU02_03-26S	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU02_03-26T	Solids		1	Glass - 4oz	NONE	8082 - PCBs
	1130	ED-DU02_03-EB	Aqueous		2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals received on:

For Laboratory Use Only		Sampled by (Name - Print) Gurrett Welch	Client Remarks/Comments Cooler(s)/Container(s)				
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) 	Date	Time	Received by: (SIGNATURE)	Date	Time
			7/8/20	1500			
Blank/Cooler Temp 28°C T102 1.6°C TP		Relinquished by: (SIGNATURE) 	Date	Time	Received by: (SIGNATURE) 	Date	Time
						7/9/20	08:27

7/17/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-195-0060
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 7/10/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

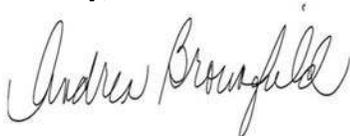
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2021
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2021
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-195-0060
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
88688	ED-DU10_04 - Primary - Composite	Solids	07/09/2020 09:30	07/10/2020
88713	ED-DU10_04 - Secondary - Composite	Solids	07/09/2020 09:45	07/10/2020
88738	ED-DU10_04 - Tertiary - Composite	Solids	07/09/2020 10:00	07/10/2020
88739	ED-DU10_04 - Tertiary - Composite - Duplicate	Solids	07/09/2020 10:00	07/10/2020
88764	ED-DU10_04 - EB	Aqueous	07/09/2020 12:00	07/10/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/17/2020
Received : 07/10/2020



Report Number : **20-195-0060**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **88688**

Matrix: **Solids**

Sample ID : **ED-DU10_04 - Primary - Composite**

Sampled: **7/9/2020 9:30**

Analytical Method: 8082A

Prep Batch(es): **L501469** 07/15/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/17/20 11:04	VIC	L501829
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/17/20 11:04	VIC	L501829
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/17/20 11:04	VIC	L501829
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/17/20 11:04	VIC	L501829
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/17/20 11:04	VIC	L501829
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/17/20 11:04	VIC	L501829
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/17/20 11:04	VIC	L501829
Surrogate: Decachlorobiphenyl	76.3		Limits: 25-125%	1	07/17/20 11:04	VIC	L501829
Surrogate: Tetrachloro-m-xylene	84.0		Limits: 25-125%	1	07/17/20 11:04	VIC	L501829

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/17/2020

Received : 07/10/2020



Andrea R. Brownfield
Project manager

Report Number : **20-195-0060**

REPORT OF ANALYSIS

Lab No : **88713**

Matrix: **Solids**

Sample ID : **ED-DU10_04 - Secondary - Composite**

Sampled: **7/9/2020 9:45**

Analytical Method: 8082A **Prep Batch(es):** L501469 07/15/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/17/20 11:26	VIC	L501829
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/17/20 11:26	VIC	L501829
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/17/20 11:26	VIC	L501829
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/17/20 11:26	VIC	L501829
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/17/20 11:26	VIC	L501829
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/17/20 11:26	VIC	L501829
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/17/20 11:26	VIC	L501829
Surrogate: Decachlorobiphenyl	75.9		Limits: 25-125%	1	07/17/20 11:26	VIC	L501829
Surrogate: Tetrachloro-m-xylene	76.4		Limits: 25-125%	1	07/17/20 11:26	VIC	L501829

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/17/2020
Received : 07/10/2020



Report Number : **20-195-0060**

REPORT OF ANALYSIS

Andrea R. Brownfield
Project manager

Lab No : **88738**

Matrix: **Solids**

Sample ID : **ED-DU10_04 - Tertiary - Composite**

Sampled: **7/9/2020 10:00**

Analytical Method: 8082A

Prep Batch(es): **L501469** 07/15/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/17/20 11:47	VIC	L501829
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/17/20 11:47	VIC	L501829
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/17/20 11:47	VIC	L501829
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/17/20 11:47	VIC	L501829
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/17/20 11:47	VIC	L501829
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/17/20 11:47	VIC	L501829
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/17/20 11:47	VIC	L501829
Surrogate: Decachlorobiphenyl	72.3		Limits: 25-125%	1	07/17/20 11:47	VIC	L501829
Surrogate: Tetrachloro-m-xylene	68.6		Limits: 25-125%	1	07/17/20 11:47	VIC	L501829

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/17/2020

Received : 07/10/2020



Andrea R. Brownfield
Project manager

Report Number : **20-195-0060**

REPORT OF ANALYSIS

Lab No : **88739**

Matrix: **Solids**

Sample ID : **ED-DU10_04 - Tertiary - Composite - Duplicate**

Sampled: **7/9/2020 10:00**

Analytical Method: 8082A

Prep Batch(es): **L501469** 07/15/20 16:30

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/17/20 12:09	VIC	L501829
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/17/20 12:09	VIC	L501829
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/17/20 12:09	VIC	L501829
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/17/20 12:09	VIC	L501829
Aroclor 1248	<1.00	mg/Kg	1.00	1	07/17/20 12:09	VIC	L501829
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/17/20 12:09	VIC	L501829
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/17/20 12:09	VIC	L501829
Surrogate: Decachlorobiphenyl	97.1		Limits: 25-125%	1	07/17/20 12:09	VIC	L501829
Surrogate: Tetrachloro-m-xylene	83.3		Limits: 25-125%	1	07/17/20 12:09	VIC	L501829

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/17/2020

Received : 07/10/2020



Andrea R. Brownfield
Project manager

Report Number : **20-195-0060**

REPORT OF ANALYSIS

Lab No : **88764**

Matrix: **Aqueous**

Sample ID : **ED-DU10_04 - EB**

Sampled: **7/9/2020 12:00**

Analytical Method: 8082A **Prep Batch(es):** L501355 07/15/20 11:15

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/16/20 04:37	VIC	L501583
Aroclor 1221	<0.50	µg/L	0.50	1	07/16/20 04:37	VIC	L501583
Aroclor 1232	<0.50	µg/L	0.50	1	07/16/20 04:37	VIC	L501583
Aroclor 1242	<0.50	µg/L	0.50	1	07/16/20 04:37	VIC	L501583
Aroclor 1248	<0.50	µg/L	0.50	1	07/16/20 04:37	VIC	L501583
Aroclor 1254	<0.50	µg/L	0.50	1	07/16/20 04:37	VIC	L501583
Aroclor 1260	<0.50	µg/L	0.50	1	07/16/20 04:37	VIC	L501583
Surrogate: Decachlorobiphenyl	57.4		Limits: 36-116%	1	07/16/20 04:37	VIC	L501583
Surrogate: Tetrachloro-m-xylene	73.2		Limits: 25-123%	1	07/16/20 04:37	VIC	L501583

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-195-0060

QC Prep: L501355 **QC Analytical Batch(es):** L501583
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L501355 Matrix: AQU
Associated Lab Samples: 88764

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1221	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1232	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1242	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1248	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1254	µg/L	< 0.200	0.200	07/16/20 02:50		
Aroclor 1260	µg/L	< 0.200	0.200	07/16/20 02:50		
Decachlorobiphenyl (S)				07/16/20 02:50	74.1	36-116
Tetrachloro-m-xylene (S)				07/16/20 02:50	64.8	25-123

Laboratory Control Sample & LCSD LCS-L501355 LCSD-L501355

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	5.01	4.86	100	97.2	44-116	3.0	20.0
Aroclor 1260	µg/L	5.00	5.30	5.41	106	108	43-129	2.0	20.0
Decachlorobiphenyl (S)					92.5	102	36-116		
Tetrachloro-m-xylene (S)					60.6	63.1	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-195-0060

QC Prep: L501469 **QC Analytical Batch(es):** L501829
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L501469 Matrix: SOL
 Associated Lab Samples: 88688, 88713, 88738, 88739

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/17/20 06:46		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/17/20 06:46		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/17/20 06:46		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/17/20 06:46		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/17/20 06:46		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/17/20 06:46		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/17/20 06:46		
Decachlorobiphenyl (S)				07/17/20 06:46	84.0	25-125
Tetrachloro-m-xylene (S)				07/17/20 06:46	68.5	25-125

Laboratory Control Sample LCS-L501469

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.126	75.4	50-125
Aroclor 1260	mg/Kg	0.167	0.117	70.0	50-125
Decachlorobiphenyl (S)				92.5	25-125
Tetrachloro-m-xylene (S)				63.0	25-125

Matrix Spike & Matrix Spike Duplicate L 88688-MS-L501469 L 88688-MSD-L501469

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.117	0.117	0.167	0.158	143*	135	40-140	5.5	30
Aroclor 1260	mg/Kg	<0.0066	0.117	0.117	0.105	0.0985	89.7	84.1	40-140	6.3	30
Decachlorobiphenyl (S)							98.5	91.4	25-125		
Tetrachloro-m-xylene (S)							82.8	89.2	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-195-0060**

Shipping Method

Fed Ex US Postal Lab Other :
 UPS Client Courier Thermometer ID: #99

Shipping container/cooler uncompromised? Yes No

Number of coolers/boxes received

Custody seals intact on shipping container/cooler? Yes No Not Present

Custody seals intact on sample bottles? Yes No Not Present

Chain of Custody (COC) present? Yes No

COC agrees with sample label(s)? Yes No

COC properly completed Yes No

Samples in proper containers? Yes No

Sample containers intact? Yes No

Sufficient sample volume for indicated test(s)? Yes No

All samples received within holding time? Yes No

Cooler temperature in compliance? Yes No

Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun. Yes No

Water - Sample containers properly preserved Yes No N/A

Water - VOA vials free of headspace Yes No N/A

Trip Blanks received with VOAs Yes No N/A

Soil VOA method 5035 – compliance criteria met Yes No N/A

High concentration container (48 hr) Low concentration EnCore samplers (48 hr)
 High concentration pre-weighed (methanol -14 d) Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included? Yes No

Comments:

Signature: Date & Time:



Kit ID:	140680
Initiated By:	Andrea Brownfield
Initiated Date:	7/2/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-195-0060
 25226
 07-13-2020
 10:21:05

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01-03 DU10-04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Elliott Ditch - Lafayette

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
07/04/20	930	ED-DU01-03-01P ED-DU10-04-01P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-01S ED-DU10-04-01S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-01T ED-DU10-04-01T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-02P ED-DU10-04-02P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-02S ED-DU10-04-02S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-02T ED-DU10-04-02T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-03P ED-DU10-04-03P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-03S ED-DU10-04-03S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Garrett Welch		* Generate duplicate from * ED-DU10-04-Tertiary				
(Y/N)	(Y/N)	Custody Seals received on:	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
		Cooler(s)/Container(s)	(Signature)		7/9/20	1230	04 (Signature)	7/13/20	
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
0.2°C ± 0.9°C								0915	07/10/2020
T99	(Signature)								



Kit ID:	140680
Initiated By:	Andrea Brownfield
Initiated Date:	7/2/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-195-0060
 25226
 07-13-2020
 10:21:05
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01-03 DU10-04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Elliott Ditch - Lafayette

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
07/09/20	1000	ED-DU01-03-03T ED-DU10-04-03T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-04P ED-DU10-04-04P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-04S ED-DU10-04-04S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-04T ED-DU10-04-04T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-05P ED-DU10-04-05P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-05S ED-DU10-04-05S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-05T ED-DU10-04-05T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-06P ED-DU10-04-06P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Garrett Welch		see pg. 1 comment			
(Y/N)	(Y/N)	Custody Seals received on:	Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)	Date Time	
		Cooler(s)/Container(s)	(Signature)		7/9/20 1230			
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)	Date Time	
0.2" & 0.9"								
T99	HPB							07/10/2020



Kit ID:	140680
Initiated By:	Andrea Brownfield
Initiated Date:	7/2/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01-04 DU10-04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrckfordobrien@cecinc.com	Elliott Ditch - Lafayette

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
07/04/20	945	ED-DU01-03-065 ED-DU10-04-065	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-067 ED-DU10-04-067	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-07P ED-DU10-04-07P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-075 ED-DU10-04-075	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-07T ED-DU10-04-07T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-08P ED-DU10-04-08P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-08S ED-DU10-04-08S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-08T ED-DU10-04-08T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody	Lab Comments	Garrett Welch		See pg. 1 comment				
Y/N	Seals	Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
					7/9/20	1230			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp									
0.2°C & 0.9°C									0915
T99 HB									07/10/2020



Kit ID:	140680
Initiated By:	Andrea Brownfield
Initiated Date:	7/2/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-195-0060
 25226
 07-13-2020
 10:21:05
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01-03- DU01-03 DU10-04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Elliott Ditch - Lafayette

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
07/04/20	1000	ED-DU01-03-11T 11T ED-DU10-04-04P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-12P 12P ED-DU10-04-0	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-12S ED-DU10-04-12S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-12T ED-DU10-04-12T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-13P ED-DU10-04-13P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-13S ED-DU10-04-13S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-13T ED-DU10-04-13T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-14P ED-DU10-04-14P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	Garrett Welch	See pg. 1 comment	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
			7/9/20 1230	
Blank/Cooler Temp	Lab Comments	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
0.2° & 0.9°	Custody Seals received on:			
199	cooler(s)/Container(s)	Relinquished by: (SIGNATURE)	Date Time	Received by: (SIGNATURE)
				07/10/2020 0915



Kit ID:	140680
Initiated By:	Andrea Brownfield
Initiated Date:	7/2/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-195-0060
 25226
 07-13-2020
 10:21:05

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01-03- DU10-4	17Z-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Elliott Ditch - Lafayette

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
07/09/20	945	ED-DU01-03-145 ED-DU10-04-145	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-14T ED-DU10-04-14T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-15P ED-DU10-04-15P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-15S ED-DU10-04-15S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-15T ED-DU10-04-15T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-16P ED-DU10-04-16P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-16S ED-DU10-04-16S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1600	ED-DU01-03-16T ED-DU10-04-16T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	Garrett Welch		See pg. 1 comment					
(Y/N)	(Y/N)	Custody Seals Received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
			(Signature)		7/9/20	1230	(Signature)			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)		Date	Time
0.9°C @ 0.2°C T99			(Signature)				(Signature)		07/10/20	0915



Kit ID:	140680
Initiated By:	Andrea Brownfield
Initiated Date:	7/2/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY

20-195-0060
 25226
 07-13-2020
 10:21:05
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01-03 DU10-04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Elliott Ditch - Lafayette

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
07/09/20	930	ED-DU01-03-17P ED-DU10-04-17P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-17S ED-DU10-04-17S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-17T ED-DU10-04-17T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-18P ED-DU10-04-18P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-18S ED-DU10-04-18S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-18T ED-DU10-04-18T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-19P ED-DU10-04-19P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-19S ED-DU10-04-19S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments			
Ice	Custody Seals	Lab Comments	Garrett Welch		See pg. 1 comment			
(Y/N)	(Y/N)	Custody Seals received on: Cooler(s) Container(s) Blank/Cooler Temp 0.2° & 0.9° T99 JLB	Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)		Date Time
					7/9/20 1230			
			Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)		Date Time
			Relinquished by: (SIGNATURE)		Date Time	Received by: (SIGNATURE)		Date Time
								07/10/2020



Kit ID:	140680
Initiated By:	Andrea Brownfield
Initiated Date:	7/2/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-195-0060
 25226
 07-13-2020
 10:21:05
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU01-03 DU10-04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordbrien@cecinc.com	Elliott Ditch - Lafayette

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/19/20	1000	ED-DU01-03-19T ED-DU10-04-19T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-20P ED-DU10-04-20P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-20S ED-DU10-04-20S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-20T ED-DU10-04-20T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	930	ED-DU01-03-21P ED-DU10-04-21P	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	945	ED-DU01-03-21S ED-DU10-04-21S	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1000	ED-DU01-03-21T ED-DU10-04-21T	Solids	G	1	Glass - 4oz	NONE	8082 - PCBs
	1200	ED-DU01-03-EB ED-DU10-04-EB	Aqueous	G	2	Glass Amber - Liter	NONE	8082 - PCBs

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments				
Ice	Custody Seals	Lab Comments	Garrett Welch		See pg. 1 comment				
W/N	Y/N	Custody Seals received on: Cooler(s)/Container(s)	Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
			[Signature]		7/19/20	1230			
			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date	Time	Received by: (SIGNATURE)	Date	Time
0.2°C / 0.9°C								0915	
T99	JLB							07/10/2020	

CEC

Client Project Manager/Contact: **Garrett weuch**

Project/Site Location (City/State): **Jenny O'Brien**

Project Number: **DW10_04**

Project Manager Email: **Elliott Ditch - Lafayette**

Project Manager Phone #: **172-367**

Method of Shipment: Fed Ex Courier, UPS Client Drop Off, USPS

Matrix Key: WW - Wastewater, DW - Drinking Water, S - Soil, O - Oil, P - Product, M - Misc

Site/Facility ID #: **Elliott Ditch - Lafayette**

Waypoint ANALYTICAL

2790 Whitten Road
Memphis, TN 38133
(901) 213-2400

Unless noted, all containers per Table II of 40 CFR Part 136.

Sample Identification

Date	Time	Sample Identification	Number of Containers	Matrix (Refer to Key)	(G)rab or (C)omposite	Required Analysis / Preservative	Comments/Notes
7/19/20	936	ED-DW10-04-22P	1	S	G		
	945	ED-DW10-04-22S	1	S	G		
	1006	ED-DW10-04-22T	1	S	G		
	930	ED-DW10-04-23P	1	S	G		
	945	ED-DW10-04-23S	1	S	G		
	1000	ED-DW10-04-23T	1	S	G		
	936	ED-DW10-04-24P	1	S	G		
	945	ED-DW10-04-24S	1	S	G		
	1000	ED-DW10-04-24T	1	S	G		



Civil & Environmental Consultants, Inc.
Elliott Ditch Remediation Confirmation - ISM

Star - Samples contain water w/leak. Proceed with analysis per C. G. Welch (C) 7/13/20

For Laboratory Use Only

Ice: Y/N

Custody Seals: Y/N

Lab Cognate Custody Seals received on: **7/19/20 1230**

Blank/Cooler Temp: **0.2°C @ 0.9°C**

TRR: **115**

Sampled by (Name - Print): **Garrett weuch**

Relinquished by: (SIGNATURE) *[Signature]*

Relinquished by: (SIGNATURE) *[Signature]*

Relinquished by: (SIGNATURE) *[Signature]*

Client Remarks/Comments: **See pg 1 comment**

Date Time: **7/19/20 1230**

Date Time: **07/10/2020**



7/21/2020

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville, TN, 37920

Ref: Analytical Testing
Lab Report Number: 20-196-0112
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Dear Ms. Jenny Rickford O'Brien:
Waypoint Analytical, LLC. received sample(s) on 7/14/2020 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Where the laboratory was not responsible for the sampling stage (refer to the chain of custody) results apply to the sample as received.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule August 2017) and NELAC unless otherwise indicated. Any parameter for which the laboratory is not officially NELAP accredited is indicated by a '~' symbol. These are not included in the scope because NELAP accreditation is either not available or has not been applied for. Additional certifications may be held/are available for parameters, where NELAP accreditation is not required or applicable. A full list of certifications is available upon request.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

Andrea R Brownfield
Project manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.



Certification Summary

Laboratory ID: WP MTN: Waypoint Analytical, LLC., Memphis, TN

State	Program	Lab ID	Expiration Date
Alabama	State Program	40750	02/28/2021
Arizona	State Program	AZ0816	08/30/2020
Arkansas	State Program	88-0650	02/07/2021
California	State Program	2904	05/10/2020
Florida	State Program - NELAP	E871157	06/30/2021
Georgia	State Program	C044	02/18/2023
Georgia	State Program	04015	06/30/2020
Illinois	State Program - NELAP	200078	10/10/2020
Kentucky	State Program	80215	06/30/2021
Kentucky	State Program	KY90047	12/31/2020
Louisiana	State Program - NELAP	LA037	12/31/2020
Louisiana	State Program - NELAP	04015	06/30/2021
Mississippi	State Program	MS	02/11/2023
North Carolina	State Program	415	12/31/2020
Oklahoma	State Program	9311	08/31/2020
Pennsylvania	State Program - NELAP	68-03195	05/31/2021
South Carolina	State Program	84002	06/30/2021
South Carolina	State Program	84002	06/30/2020
Tennessee	State Program	02027	02/11/2023
Tennessee	A2LA ISO 17025:2017	4313.01	10/31/2021
Texas	State Program - NELAP	T104704180	09/30/2020
Virginia	State Program	00106	06/30/2021
Virginia	State Program - NELAP	460181	09/14/2020
Washington	State Program	C1018	07/31/2020

Sample Summary Table

Report Number: 20-196-0112
Client Project Description: Elliott Ditch Remediation Confirmation -
Project No.: 172-367

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
89408	ED-DU09_04 - Primary - Composite	Solids	07/13/2020 10:20	07/14/2020
89435	ED-DU09_04 - Secondary - Composite	Solids	07/13/2020 10:30	07/14/2020
89462	ED-DU09_04 - Tertiary - Composite	Solids	07/13/2020 10:40	07/14/2020
89489	ED-DU09_04 - EB	Aqueous	07/13/2020 11:30	07/14/2020

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/21/2020
Received : 07/14/2020



Andrea R. Brownfield
Project manager

Report Number : **20-196-0112**

REPORT OF ANALYSIS

Lab No : **89408**

Matrix: **Solids**

Sample ID : **ED-DU09_04 - Primary - Composite**

Sampled: **7/13/2020 10:20**

Analytical Method: 8082A **Prep Batch(es):** L501897 07/17/20 17:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/20/20 19:09	VIC	L502101
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/20/20 19:09	VIC	L502101
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/20/20 19:09	VIC	L502101
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/20/20 19:09	VIC	L502101
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/21/20 11:02	VIC	L502101
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/20/20 19:09	VIC	L502101
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/20/20 19:09	VIC	L502101
Surrogate: Decachlorobiphenyl	93.9		Limits: 25-125%	1	07/20/20 19:09	VIC	L502101
Surrogate: Tetrachloro-m-xylene	78.6		Limits: 25-125%	1	07/20/20 19:09	VIC	L502101

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/21/2020

Received : 07/14/2020



Andrea R. Brownfield
Project manager

Report Number : **20-196-0112**

REPORT OF ANALYSIS

Lab No : **89435**

Matrix: **Solids**

Sample ID : **ED-DU09_04 - Secondary - Composite**

Sampled: **7/13/2020 10:30**

Analytical Method: 8082A **Prep Batch(es):** L501897 07/17/20 17:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/20/20 19:31	VIC	L502101
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/20/20 19:31	VIC	L502101
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/20/20 19:31	VIC	L502101
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/20/20 19:31	VIC	L502101
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/21/20 11:23	VIC	L502101
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/20/20 19:31	VIC	L502101
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/20/20 19:31	VIC	L502101
Surrogate: Decachlorobiphenyl	86.5		Limits: 25-125%	1	07/20/20 19:31	VIC	L502101
Surrogate: Tetrachloro-m-xylene	78.0		Limits: 25-125%	1	07/20/20 19:31	VIC	L502101

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/21/2020
Received : 07/14/2020



Andrea R. Brownfield
Project manager

Report Number : **20-196-0112**

REPORT OF ANALYSIS

Lab No : **89462**

Matrix: **Solids**

Sample ID : **ED-DU09_04 - Tertiary - Composite**

Sampled: **7/13/2020 10:40**

Analytical Method: 8082A

Prep Batch(es): **L501897** 07/17/20 17:45

Prep Method: 3540C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<1.00	mg/Kg	1.00	1	07/20/20 22:08	VIC	L502101
Aroclor 1221	<1.00	mg/Kg	1.00	1	07/20/20 22:08	VIC	L502101
Aroclor 1232	<1.00	mg/Kg	1.00	1	07/20/20 22:08	VIC	L502101
Aroclor 1242	<1.00	mg/Kg	1.00	1	07/20/20 22:08	VIC	L502101
Aroclor 1248	<1.00	mg/Kg	1.00	10	07/21/20 11:45	VIC	L502101
Aroclor 1254	<1.00	mg/Kg	1.00	1	07/20/20 22:08	VIC	L502101
Aroclor 1260	<1.00	mg/Kg	1.00	1	07/20/20 22:08	VIC	L502101
Surrogate: Decachlorobiphenyl	105		Limits: 25-125%	1	07/20/20 22:08	VIC	L502101
Surrogate: Tetrachloro-m-xylene	81.7		Limits: 25-125%	1	07/20/20 22:08	VIC	L502101

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

25226

Civil & Environmental Consultants, Inc.
Ms. Jenny Rickford O'Brien
2704 Cherokee Farm Way²Suite 101
Suite 101
Knoxville , TN 37920

Project Elliott Ditch Remediation Confirmation -

Information : Project No.: 172-367

Report Date : 07/21/2020

Received : 07/14/2020



Andrea R. Brownfield
Project manager

Report Number : **20-196-0112**

REPORT OF ANALYSIS

Lab No : **89489**

Matrix: **Aqueous**

Sample ID : **ED-DU09_04 - EB**

Sampled: **7/13/2020 11:30**

Analytical Method: 8082A **Prep Batch(es):** L501842 07/17/20 13:00

Prep Method: 3510C

Test	Results	Units	MQL	DF	Date / Time Analyzed	By	Analytical Batch
Aroclor 1016	<0.50	µg/L	0.50	1	07/17/20 20:21	VIC	L502090
Aroclor 1221	<0.50	µg/L	0.50	1	07/17/20 20:21	VIC	L502090
Aroclor 1232	<0.50	µg/L	0.50	1	07/17/20 20:21	VIC	L502090
Aroclor 1242	<0.50	µg/L	0.50	1	07/17/20 20:21	VIC	L502090
Aroclor 1248	<0.50	µg/L	0.50	1	07/17/20 20:21	VIC	L502090
Aroclor 1254	<0.50	µg/L	0.50	1	07/17/20 20:21	VIC	L502090
Aroclor 1260	<0.50	µg/L	0.50	1	07/17/20 20:21	VIC	L502090
Surrogate: Decachlorobiphenyl	46.0		Limits: 36-116%	1	07/17/20 20:21	VIC	L502090
Surrogate: Tetrachloro-m-xylene	29.7		Limits: 25-123%	1	07/17/20 20:21	VIC	L502090

**Qualifiers/
Definitions**

DF

Dilution Factor

MQL

Method Quantitation Limit

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-196-0112

QC Prep: L501842 **QC Analytical Batch(es):** L502090
QC Prep Batch Method: 3510C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L501842 Matrix: AQU
Associated Lab Samples: 89489

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	µg/L	< 0.200	0.200	07/17/20 18:55		
Aroclor 1221	µg/L	< 0.200	0.200	07/17/20 18:55		
Aroclor 1232	µg/L	< 0.200	0.200	07/17/20 18:55		
Aroclor 1242	µg/L	< 0.200	0.200	07/17/20 18:55		
Aroclor 1248	µg/L	< 0.200	0.200	07/17/20 18:55		
Aroclor 1254	µg/L	< 0.200	0.200	07/17/20 18:55		
Aroclor 1260	µg/L	< 0.200	0.200	07/17/20 18:55		
Decachlorobiphenyl (S)				07/17/20 18:55	82.3	36-116
Tetrachloro-m-xylene (S)				07/17/20 18:55	36.6	25-123

Laboratory Control Sample & LCSD LCS-L501842 LCSD-L501842

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS %Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD
Aroclor 1016	µg/L	5.00	2.87	2.03	57.4	40.6*	44-116	34.2*	20.0
Aroclor 1260	µg/L	5.00	3.71	2.50	74.2	50.0	43-129	38.9*	20.0
Decachlorobiphenyl (S)					70.1	40.1	36-116		
Tetrachloro-m-xylene (S)					28.6	21.8*	25-123		

Quality Control Data

Client ID: Civil & Environmental Consultants, Inc.
Project Description: Elliott Ditch Remediation Confirmation - ISM
Report No: 20-196-0112

QC Prep: L501897 **QC Analytical Batch(es):** L502101
QC Prep Batch Method: 3540C **Analysis Method:** 8082A
Analysis Description: Polychlorinated Biphenyls (PCB's)

Lab Reagent Blank LRB-L501897 Matrix: SOL
 Associated Lab Samples: 89408, 89435, 89462

Parameter	Units	Blank Result	MQL	Analyzed	% Recovery	% Rec Limits
Aroclor 1016	mg/Kg	<0.0066	0.0066	07/20/20 17:44		
Aroclor 1221	mg/Kg	<0.0066	0.0066	07/20/20 17:44		
Aroclor 1232	mg/Kg	<0.0066	0.0066	07/20/20 17:44		
Aroclor 1242	mg/Kg	<0.0066	0.0066	07/20/20 17:44		
Aroclor 1248	mg/Kg	<0.0066	0.0066	07/20/20 17:44		
Aroclor 1254	mg/Kg	<0.0066	0.0066	07/20/20 17:44		
Aroclor 1260	mg/Kg	<0.0066	0.0066	07/20/20 17:44		
Decachlorobiphenyl (S)				07/20/20 17:44	70.0	25-125
Tetrachloro-m-xylene (S)				07/20/20 17:44	83.0	25-125

Laboratory Control Sample LCS-L501897

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Aroclor 1016	mg/Kg	0.167	0.125	74.8	50-125
Aroclor 1260	mg/Kg	0.167	0.157	94.0	50-125
Decachlorobiphenyl (S)				70.5	25-125
Tetrachloro-m-xylene (S)				91.0	25-125

Matrix Spike & Matrix Spike Duplicate L 89408-MS-L501897 L 89408-MSD-L501897

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Aroclor 1016	mg/Kg	<0.0066	0.0826	0.0781	1.17	1.28	1420*	1640*	40-140	8.9	30
Aroclor 1260	mg/Kg	<0.0066	0.0826	0.0781	0.120	0.0964	145*	123	40-140	21.8	30
Decachlorobiphenyl (S)							94.7	88.4	25-125		
Tetrachloro-m-xylene (S)							79.5	78.6	25-125		

Shipment Receipt Form

Customer Number: **25226**
 Customer Name: **Civil & Environmental Consultants, Inc.**
 Report Number: **20-196-0112**

Shipping Method

Fed Ex
 US Postal
 Lab
 Other :
 UPS
 Client
 Courier
 Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers/boxes received	<input type="text" value="2"/>		
Custody seals intact on shipping container/cooler?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Not Present
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Present
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)		<input type="checkbox"/> Low concentration EnCore samplers (48 hr)	
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)		<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)	
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:

Kit ID:	140965
Initiated By:	Andrea Brownfield
Initiated Date:	7/9/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



20-196-0112
 25226
 07-14-2020
 16:25:43
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - iSM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_04	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arcenic- Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1020	ED-DU09_04-01P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1030	ED-DU09_04-01S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-01T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-02P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-02S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-02T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-03P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-03S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	↓							

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	J. O'Brien	Waypoint to generate MS/MSD sample from 20-DU09-04-Primary for PCB analysis			
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	7/13	1700		
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

Blank/Cooler Temp
 0.6°C T99
 1.5°C TP

Lab Comments: Cooler(s) received on: Custody Seals Container(s)

7/14/20 09:40

Kit ID:	140965
Initiated By:	Andrea Brownfield
Initiated Date:	7/9/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



20-196-0112
 25226
 07-14-2020
 16:25:43
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - iSM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_04	172-307		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1040	ED-DU09_04-03T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-04P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-04S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-04T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-05P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-05S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-05T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1020	ED-DU09_04-06P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals received on:	
Ice	Custody Seals	J. O'Brien	see page 1		Cooler(s)/Container(s)	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	7/13	1700		
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
0.6°C T99 1.5°C TP						
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time

7/14/20
09:40

Kit ID:	140965
Initiated By:	Andrea Brownfield
Initiated Date:	7/9/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - iSM

20-196-0112
 25226
 07-14-2020
 16:25:43

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU09_04	172-307		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1130	ED-DU09_04-06S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-06T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-07P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-07S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-07T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-08P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-08S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1040	ED-DU09_04-08T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals received on:	
Ice	Custody Seals	J. O'Brien	See page 1		Cooler(s)/Container(s)	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	7/13	1700		
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
Blank/Cooler Temp						
0.0°C T991						
1.5°C TP						

Kit ID:	140965
Initiated By:	Andrea Brownfield
Initiated Date:	7/9/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-196-0112
 25226
 07-14-2020
 16:25:43

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment
DU09_04	172-367		<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1020	ED-DU09_04-09P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-09S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-09T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-10P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-10S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-10T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-11P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
✓	1030	ED-DU09_04-11S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only			Sampled by (Name - Print)		Client Remarks/Comments					
Ice	Custody Seals	Lab Comments	J. O'Brien		see page 1 received on:					
Y/N	Y/N		Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
			Jenny O'Brien		7/13 1700					
			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
Blank/Cooler Temp			Relinquished by: (SIGNATURE)		Date Time		Received by: (SIGNATURE)		Date Time	
0.6°C T99 1.5°C TP							A. P. [Signature]		7/14/20 09:40	



Kit ID: 140965
Initiated By: Andrea Brownfield
Initiated Date: 7/9/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-196-0112
 25226
 07-14-2020
 16:25:43

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_04	Project Number 172-307	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses	
7/13	1040	ED-DU09_04-11T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1020	ED-DU09_04-12P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1030	ED-DU09_04-12S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1040	ED-DU09_04-12T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1020	ED-DU09_04-13P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1030	ED-DU09_04-13S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	1040	ED-DU09_04-13T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs	
	✓	1020	ED-DU09_04-14P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) J. O'Brien	Client Remarks/Comments see page 1		received on:
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	Date 7/13	Time 1700	Cooler(s)/Container(s)
Blank/Cooler Temp 0.6°C T99 1.5°C TP		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)
					<i>[Signature]</i> 7/14/20 09:40

Kit ID:	140965
Initiated By:	Andrea Brownfield
Initiated Date:	7/9/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-196-0112
 25226
 07-14-2020
 16:25:43

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrckfordobrien@cecinc.com	Aroonic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1030	ED-DU09_04-14S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-14T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-15P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-15S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-15T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-16P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-16S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1040	ED-DU09_04-16T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments		Custody Seals	
Ice	Custody Seals	J. O'Brien	see page 1		received on:	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		Jenny O'Brien	7/13	1700		
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
0.6°C T99 1.5°C T9						
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
						7/14/20 09:40

Kit ID:	140965
Initiated By:	Andrea Brownfield
Initiated Date:	7/9/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



20-196-0112
 25226
 07-14-2020
 16:25:43
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_04	Project Number 172-307	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic-Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1020	ED-DU09_04-17P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-17S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-17T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-18P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-18S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-18T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-19P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-19S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) J. O'Brien	Client Remarks/Comments See page 1		received on:
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jimmy O'Brien	Date	Time	Received by: (SIGNATURE)
Blank/Cooler Temp 0.6°C T99 1.5°C T10		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)

7/14/20
09:40

Kit ID: 140965
Initiated By: Andrea Brownfield
Initiated Date: 7/9/2020
Project Comment Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-196-0112
 25226
 07-14-2020
 16:25:43

Company Name Civil & Environmental Consultants, Inc.	Company Number 25226	Client Project Manager/Contact Civil & Environmental Consultants, Inc.	Purchase Order Number
Site Name DU09_04	Project Number 172-367	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
LIMS Project ID CEC Knox - Elliott Ditch	Project Manager Phone # 865-407-8861	Project Manager Email jrickfordobrien@cecinc.com	Site/Facility ID # Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1040	ED-DU09_04-19T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-20P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-20S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-20T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-21P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-21S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-21T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	✓	1020	ED-DU09_04-22P	SOL	G	1	Glass - 4oz	NONE

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print) J. O'Brien	Client Remarks/Comments see page 1			
Ice Y/N	Custody Seals Y/N	Relinquished by: (SIGNATURE) Jenny O'Brien	received on: Cooler(s) Container(s)			
Lab Comments			Date	Time	Received by: (SIGNATURE)	Date
Blank/Cooler Temp 0.6°C T99 1.5°C T19			Date	Time	Received by: (SIGNATURE)	Date
		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date
					7/14/20 09:40	

Kit ID:	140965
Initiated By:	Andrea Brownfield
Initiated Date:	7/9/2020
Project Comment	Dry, Grind and Composite all "P", "S" & "T" samples together.

CHAIN-OF-CUSTODY



Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - ISM

20-196-0112
 25226
 07-14-2020
 16:25:43

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH - Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordbrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1030	ED-DU09_04-22S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-22T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-23P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-23S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-23T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-24P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-24S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
↓	1040	ED-DU09_04-24T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs

Custody Seals

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments			
Ice	Custody Seals	J. O'Brien	SEE page 1 received on: Cooler(s)/Container(s)			
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
		J. O'Brien	7/13	1700		
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time	Received by: (SIGNATURE)	Date Time
0.6°C Tag 1.5°C TP						7/14/20 09:40

Kit ID:	140965
Initiated By:	Andrea Brownfield
Initiated Date:	7/9/2020
Project Comment	
Dry, Grind and Composite all "P", "S" & "T" samples together.	

CHAIN-OF-CUSTODY



20-196-0112
 25226
 07-14-2020
 16:25:43
 Civil & Environmental Consultants, Inc.
 Elliott Ditch Remediation Confirmation - iSM

Company Name	Company Number	Client Project Manager/Contact	Purchase Order Number
Civil & Environmental Consultants, Inc.	25226	Civil & Environmental Consultants, Inc.	
Site Name	Project Number	<input type="checkbox"/> RUSH – Additional charges apply <input type="checkbox"/> Special Detection Limits(s) Date Results Needed	Method of Shipment <input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Courier <input type="checkbox"/> Client Drop Off Other
DU09_04	172-367		
LIMS Project ID	Project Manager Phone #	Project Manager Email	Site/Facility ID #
CEC Knox - Elliott Ditch	865-407-8861	jrickfordobrien@cecinc.com	Arconic - Elliott Ditch

Date	Time	Sample ID	Matrix	Grab/Comp	# of Cont	Container Type	Preservation	Analyses
7/13	1020	ED-DU09_04-25P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-25S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-25T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1020	ED-DU09_04-26P	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1030	ED-DU09_04-26S	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1040	ED-DU09_04-26T	SOL	G	1	Glass - 4oz	NONE	8082 - PCBs
	1130	ED-DU09_04-EB	AQU	G	2	Glass Amber - Liter	NONE	8082 - PCBs

Custody Seals received on:

For Laboratory Use Only		Sampled by (Name - Print)	Client Remarks/Comments	
Ice	Custody Seals	J. O'Brien	See page 1 Cooler(s)/Container(s)	
Y/N	Y/N	Relinquished by: (SIGNATURE)	Date	Time
		Jenny O'Brien	7/13	1700
Blank/Cooler Temp		Relinquished by: (SIGNATURE)	Date	Time
0.6°C 199 1.5°C TP				
		Relinquished by: (SIGNATURE)	Date	Time
			7/14/20	09:40

APPENDIX XV
PHOTOGRAPH LOG

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Clearing Vegetation—Mulching Felled Trees



Clearing Vegetation—Completed

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Driveway Expansion—Construction



Driveway Expansion—Completed

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Site Preparation—Silt Fence and Security Fence



Site Preparation—Haul Road Installation

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Site Preparation—Culvert Expansion



Site Preparation—Completed Haul Road



Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Site Preparation—Laydown Area Installation



Site Preparation—Rumble Strip Installation

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Site Preparation—Secondary Entrance Improvements



Site Preparation—Concrete Pad for Truck Lining Construction

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Site Preparation—Decontamination Pad



Site Preparation—Water Treatment System

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Non-TSCA Soil Removal– Lining Trucks



Non-TSCA Soil Removal– Loading Truck



Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Non-TSCA Soil Removal– Excavating Soil



Non-TSCA Soil Removal– Fine Grading

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Non-TSCA Soil Removal– Loading Truck



Non-TSCA Soil Removal– Loading Truck

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Non-TSCA Soil Removal– Excavating Soil



Non-TSCA Soil Removal– Hand Digging around Manhole

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Non-TSCA Soil Removal– Truck Driving Over Rumble Strips



Dry Decontamination– Decontamination of Excavator Tracks

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



TSCA Soil Removal– Semi-Truck with Placard



TSCA Soil Removal– Loading Semi-Truck

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



TSCA Soil Removal– Verifying Excavation Depths with GPS



TSCA Soil Removal– Semi-Truck Driving Over Rumble Strips



Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Confirmation Sampling– Sampling Soil



Confirmation Sampling– Grid Marking with Survey Flags

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Erosion Control— Straw Wattles Installed along Bank



Dust Suppression— Water Truck Spraying Water on Haul Road

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Backfill—Delivery



Backfill—Installation and Compacting



Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Backfill—Installation and Compaction



Backfill—Completed Area



Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Topsoil– Installation



Topsoil– Completed Area



Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Revegetation— Hydro-seeding



Revegetation— Completed Area



Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Demobilization— Decontamination of Excavator with Solvent



Demobilization— Secondary Entrance

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Demobilization— Haul Road and Decontamination Pad Left in Place



Demobilization— Security Fence Removed; Silt Fence Left in Place

Photographs— Elliott Ditch Levee Interim Measures Post Construction Report



Vegetation—Vegetation Establishment Along Bank



Vegetation—Vegetation Establishment on Levee