Badin Business Park LLC

Highway 740
P.O. Box 576
Badin, NC 28009
Tel: 1 704 422 5865

January 27, 2022

ATTN: Derek Denard
Division of Water Resources
WQ Permitting Section – NPDES
1617 Mail Service Center
Raleigh, NC 27699-1617

Re: Response to Information Request
Badin Business Park LLC
NPDES No. NC0004308
Stanly County

Mr. Denard:

Please find attached Badin Business Park LLC's responses to the Division of Water Resources request for information regarding the recent soil removal project, dated December 20, 2021. As you will see in the detailed responses below, this effort was part of our ongoing efforts to investigate and address potential sources of constituents on the site, particularly with regard to Outfall 005.

For ease of discussion and mutual understanding, each request raised by your office is presented below in bold and italics and is followed by Badin Business Park's (BBP) response. We hope you find the following sufficient to address your concerns. Please contact me should you have additional questions or concerns regarding this project.

1. ***Provide a map depicting the footprint of the excavated area and reasons and supporting data for the removal of the soils.***

Response: The excavation of soils from an area near the former Bath Mill (Building 204H) was conducted during the week of October 11, 2021 as a positive step towards BBP's commitment to investigate and address potential sources of constituents quantified in aqueous samples collected at Outfall 005. A depiction of the excavated area is provided on Figures 1 & 2 as Attachment 1. The basis for pursing the project is as follows.

In March 2020, an electromagnetic (EM) geophysical evaluation was performed to assess for the presence of previously unknown sources and/or pathways for constituents to enter the Outfall 005 storm sewer system. The geophysical survey was conducted on an approximate eleven-acre area west of the former potrooms and an approximate seven-acre area north of the former potrooms. The EM method was selected due to its ability to detect variations in shallow subsurface soil conductivity, variations in shallow groundwater conductivity, and metallic materials.

Results from the EM evaluation were suggestive of potential buried structures, materials, and conductive porewater and/or groundwater. One EM response corresponded to the location of the

former Bath Mill where recovered bath material, a fluoride-bearing mixture from the aluminum reduction pots, was crushed and repurposed. This location is also near the Outfall 005 storm sewer system.

In June 2020, four test pits (TP-205 through TP-208, See Attachment 2 for location) were installed at the former Bath Mill and samples of soil and water were collected for analysis. The results of the soil and water analysis are presented in Tables 1 and 2 respectively. Additionally, the laboratory reports are included as Attachment 3. These sample results and the corresponding proximity to the Outfall 005 storm sewer network confirmed that the former Bath Mill area had a potential to contribute to constituents quantified in aqueous samples collected at Outfall 005.

Table 1 - Soil Sample Analytical Results

Location			TP-205	TP-205	TP-206	TP-206	TP-207	TP-207	TP-208	TP-208
Depth Below Land Surface			2.0'	6.0'	2.0'	4.0'	2.0'	9.5'	2.0'	9.5'
Sample Identification			ABP-TP-205 (2.0)	ABP-TP-205 (6.0)	ABP-TP-206 (2.0)	ABP-TP-206 (4.0)	ABP-TP-207 (2.0)	ABP-TP-207 (9.5)	ABP-TP-208 (2.0)	ABP-TP-208 (9.5)
Sample Date			6/29/2020	6/29/2020	6/29/2020	6/29/2020	6/29/2020	6/29/2020	6/29/2020	6/29/2020
Sample Time	Method	Unit	13:15	13:50	14:05	14:20	15:00	15:10	15:30	15:40
ASTM Leach (D3987-85)										
Fluoride	300.0 R2.1	mg/L	4.8	2.2	10	25	1.1	3.2	1.7	0.17
Total Cyanide	9012B / 9012B	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total (Dry Weight)										
Fluorine	ATSM D3761 / 9056	mg/kg	101	197	811	7250	264	118	113	285
Fluoride	4500 F-B / 9056A	mg/kg	190	610	690	NA	NA	NA	NA	NA
Total Cyanide	9012A / 9012A	mg/kg	< 0.071	< 0.075	0.068	0.13	< 0.064	0.074	< 0.068	< 0.076

Notes:

- Method indicates both preparation and analysis as applicable.
- Samples ABP-TP-206 (4.0), ABP-TP-207 (2.0), ABP-TP-207 (9.5), ABP-TP-208 (2.0) and ABP-TP-208 (9.5) were not analyzed for fluoride using distillation method 4500.

Acronyms:

- mg/L - Milligrams per liter.
- mg/kg- Milligrams per kilogram.
- NA - Not analyzed.

Table 2 - Water Sample Analytical Results

Location	Method	Unit	TP-205
Sample Identification			ABP-TP-205W
Sample Date			6/29/2020
Sample Time			14:35
Total			
Fluoride	300.0-1993 R2.1	mg/L	21
Total Cyanide	D7511-12	mg/L	< 0.0060

2. ***This map, or information in support of the map, must indicate the area of onsite excavation, include the dimensions of the excavated area, the total volume of soils excavated, and any pre-activity topographic survey of the excavated area that may exist, as well as a topographic survey of the post excavation area.***

Response: The approximate boundaries of the excavation area are shown on Figures 1 and 2. The dimensions of the excavated area were approximately 80 feet (north/south) by 50 feet (east/west). The pre-excavation topography is shown on Figure 1; the excavation area and adjacent areas are generally flat. Soils to a depth of eight feet below grade (~1,200 In-Situ Cubic Yards) were excavated and loaded to trucks. A total of 102 truckloads containing approximately 1,893 tons of solid materials were sent offsite for disposal. An additional three to four feet of soils below the base of the excavation were excavated to be mixed with quick lime at an approximate 5-10% dosing ratio by mass. The remaining excavation was backfilled to match surrounding grade with native soils supplied from a local property (61608 Hwy 740 in Badin NC).

3. ***Explain how much surface area was disturbed (including access roads), detail what stabilization measures/erosion control measures were used and if there were any erosion/turbidity issues with the area of disturbance.***

Response: See previous response for description of excavation area. Truck traffic was limited to existing paved access roads. No erosion/turbidity issues were identified as construction occurred during a brief period of time with no precipitation. Further, the excavation was performed such that potential runoff would be directed inward into the excavation.

4. ***Detail how the excavated area was stabilized, if the area was back filled or capped, and where this back fill material came from. Also, explain how the work area was ultimately managed such that soils, turbidity, solids or other waste did not erode or otherwise course from the area of disturbance to surface waters.***

Response: See previous responses.

5. Detail how this work and the ultimate stabilization of the area was monitored during this effort.

Response: Monitoring of the construction activity was conducted periodically by both Site personnel and a consultant.

6. A DWR NPDES file review did not reveal notification of this soil removal activity for the project starting on October 12th. Please provide any prior notifications (e.g. including plans for this material removal, information on truck traffic, ultimate disposal, or of this work occurring on October 12, 2021).

Response: Notification of the investigation activity leading to the decision to remove this material was first reviewed with DWR personnel during a meeting (conducted remotely) on February 18, 2021 to review the Outfall 005 compliance status. The plan to remove the material was later discussed with DWR personnel during a follow up meeting (conducted remotely) on June 15, 2021. The slides shared during the meetings along with the respective meeting invitations are attached for reference as Attachment 2. During both meetings, there was a general recognition that the removal could be a self-implemented activity given the facts of the matter. A courtesy call was made to the Division of Waste Management (DWM) the week prior to keep the DWM apprised of on-site activity.

7. Include a photographic record of the excavation area prior to excavation (if one exists) and a photographic record of the current site conditions.

Response: Three photos are provided. One prior to excavation, one during excavation, and one post excavation.

Pre-Excavation Photo (Taken June 2020)

Representative Open Excavation Photo (Taken Oct 14, 2021)

Post Excavation Photo (Taken Jan 10, 2022)

8. Provide all sampling results and laboratory analytical documentation of the excavated soils.

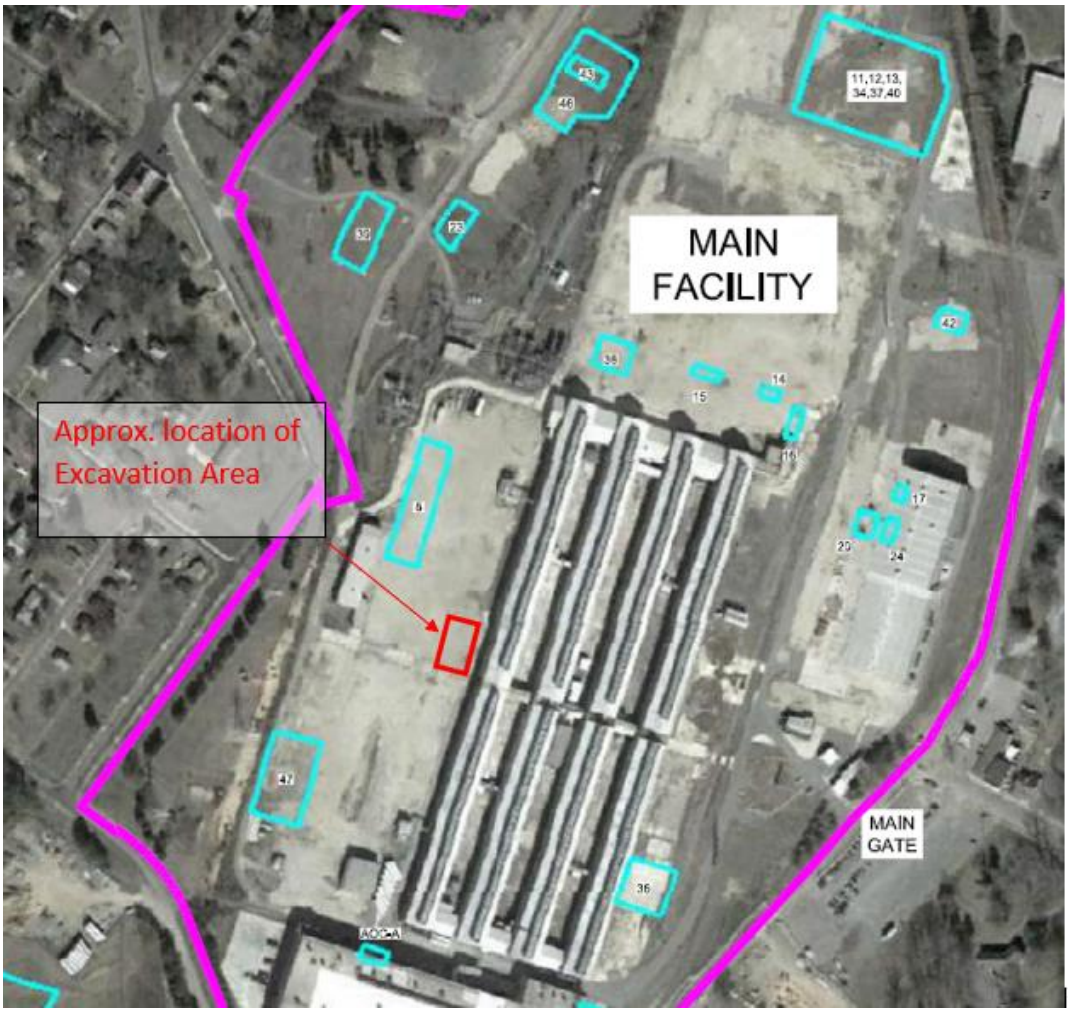
Response: See previous response for a summary table of investigative results and reference to the laboratory reports.

9. Provide a complete record of the NPDES monitoring that occurred during and after the excavation activities and identify any changes that may have occurred because of the soil disturbance.

Response: No changes were observed correlated to this activity. NPDES monitoring prior, during, and after the excavation activity has been documented in routine discharge monitoring reports (DMRs).

10. Provide documentation that the soil excavation did not impact an existing RCRA solid waste management unit or area of concern.

Response: The excavation area is not associated with an existing RCRA solid Waste Management Unit or Area of Concern. See the following figure which shows the location of the excavation area compared to the location of the identified SWMUs (shown in blue).



11. Finally, please provide any data/information you provided and explain in your written response the information you provided to the landfill, (Republic Services' Uwharrie Landfill in Montgomery County, NC) as to the sample results and sources of this material for use as cover material.

Response:

A verbal inquiry for disposal of the soil and crushed concrete was first made to the landfill representative by telephone in early March 2021 followed by the submittal of analytical results by email accompanied with the following text, "*Attached is the analytical for the 1900 tons of soil and crushed concrete. Can you provide a profile and disposal cost per ton for this material. They will deliver this material over the course of one week approximately 80 -85 loads."* The analytical results, included as Attachment 4, are of a representative sample composited from several grab samples collected from the soils returned to the test pit locations at the bath mill area as previously described. The landfill provided a Waste Profile by email for review and signature (see Attachment 5).

Sincerely,

Robyn L. Gross
Director, Asset Management Americas

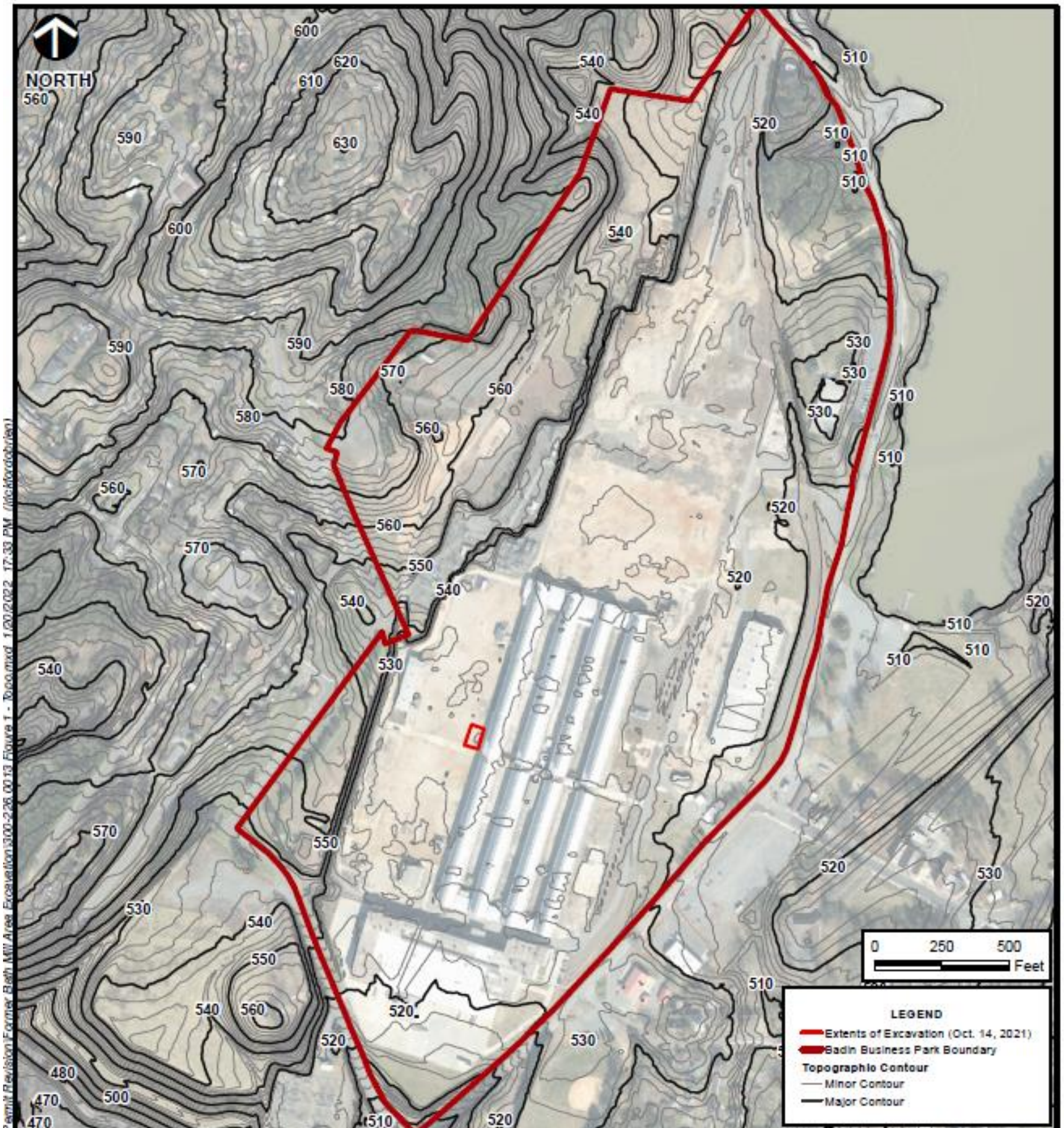
Attachments:

- Figures 1 & 2
- Referenced Slides
- Analytical Report – Soil & Water Samples
- Analytical Report – Waste Characterization
- Waste Profile

cc via email: Robert C. McDaniel, Hazardous Waste Section

Attachment 1

Figures 1 & 2



ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY, ACCESSED 1/21/2022.

TOPOGRAPHIC CONTOURS CONSTRUCTED FROM NC FLOODPLAIN MAPPING PROGRAM QUALITY LEVEL 2 LIDAR DATA. ALL DATA WAS DELIVERED IN THE NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, WITH A HORIZONTAL DATUM OF NAD83 (2011) AND VERTICAL DATUM OF NAVD88 (GEOID 12A), IN US SURVEY FEET. ACCESSED 1/14/2022.

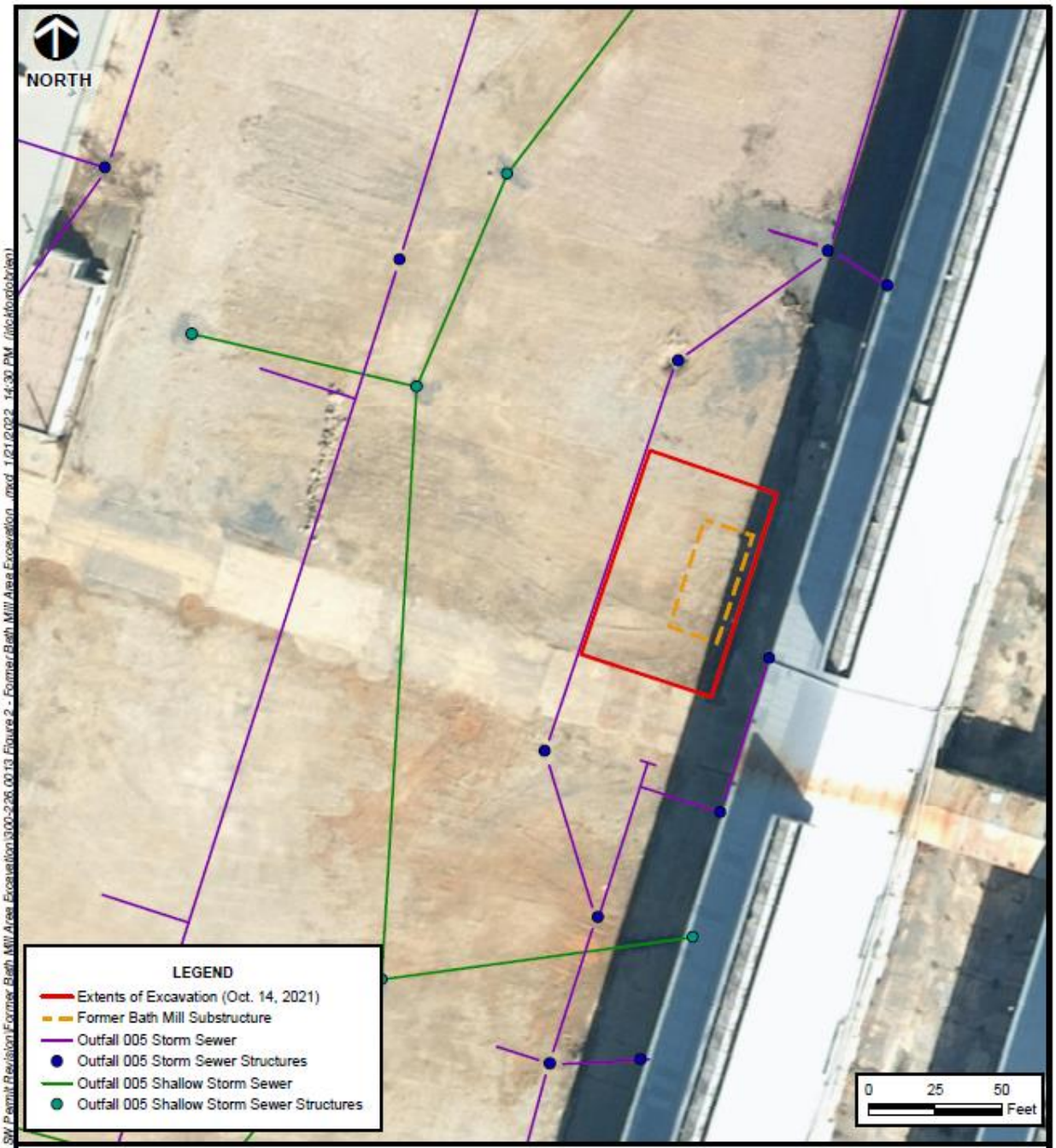
CEC

Civil & Environmental Consultants, Inc.
2704 Cherokee Farm Way, Suite101 - Knoxville, TN 37920
865-977-9997 · 865-774-7767
www.cecinc.com

BADIN BUSINESS PARK LLC
BADIN BUSINESS PARK FACILITY
BADIN, NORTH CAROLINA

FACILITY TOPOGRAPHY

DRAWN BY:	JO	CHECKED BY:	MW	APPROVED BY:	JMB*	FIGURE NO:	1
DATE:	January 21, 2022	SCALE:	1 " = 500 '	PROJECT NO:	300-226.0013		



ESRI WORLD IMAGERY / ARCGIS MAP SERVICE: HTTP://GOTO.ARCGISONLINE.COM/MAPS/WORLD_IMAGERY. ACCESSED 1/21/2022.

ALL LOCATIONS ARE APPROXIMATE. THE STORM SEWER LOCATIONS ARE FROM THE FACILITY PROVIDED DRAWING G-055041-BN.

Civil & Environmental Consultants, Inc.
2704 Cherokee Farm Way, Suite101 - Knoxville, TN 37920
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BADIN BUSINESS PARK LLC
BADIN BUSINESS PARK FACILITY
BADIN, NORTH CAROLINA

FORMER BATH MILL AREA EXCAVATION

DRAWN BY:	JO	CHECKED BY:	MW	APPROVED BY:	JMB*	FIGURE NO:	2
DATE:	January 21, 2022	SCALE:	1 " = 50 '	PROJECT NO:	300-226.0013		

P:\300-000\300-226-GIS\Maps\300-226.0013_SW Permit Revision-Former Bath Mill Area Excavation\300-226.0013 Figure 2 - Former Bath Mill Area Excavation_mxd 1/21/2022 14:30 PM (rickdodchien)

Attachment 2

Referenced Slides & Meeting Invitations

Extract from February 18, 2021 Presentation

Geophysics & Environmental Investigative Activities

Alcoa

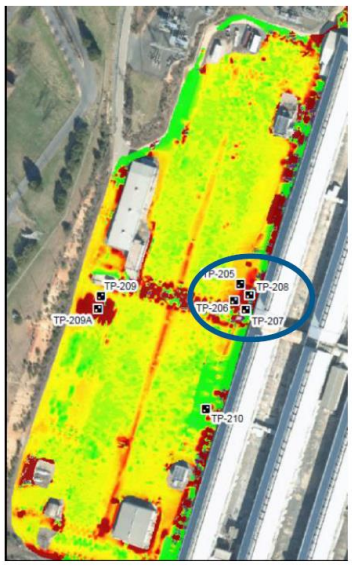
- **Geophysics** – performed to assess for the presence of previously unknown sources and/or pathways for constituents to enter the storm sewer system. (June 2020)
  - Able to detect variations in shallow subsurface soil conductivity, variations in shallow groundwater conductivity, and metallic debris.

- **Environmental Activities** – To further assess subsurface conditions, test pits were excavated, and media was sampled at the locations of selected electromagnetic anomalies. (Dec 2020)
  - Twelve soil samples, total & leachable fluoride & cyanide
  - Three water samples total fluoride & cyanide

Extract from June 15, 2021 Presentation

Additional Proposed Activities

Alcoa



Geophysics – performed to assess for the presence of previously unknown sources and/or pathways for constituents to enter the storm sewer system. Able to detect variations in shallow subsurface soil conductivity, variations in shallow groundwater conductivity, and metallic materials.

Environmental Activities – Test pits were dug at locations of identified electromagnetic anomalies. Soil and water samples collected and analyzed for total and leachable fluoride and cyanide. (Dec 2020)

Results – Identified Former Bath Mill (TP-205 to 208) as a potential contribution to fluoride in storm sewer network. **We are working on plans to remove and landfill these soils.**

Gross, Robyn L.

Subject: Badin Business Park, LLC

Start: Thu 2/18/2021 3:00 PM
End: Thu 2/18/2021 4:30 PM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Denard, Derek

In attendance with Badin Business Park, LLC:

Robyn Gross - Director, Alcoa Asset Management
Jason Mibroda - Alcoa Remediation Manager
Chelsea Cramer - Alcoa In-House Council
Rajat Ghosh - Alcoa Environmental Technical Manager
Steve Parascandola - Outside Council for Alcoa
Nathan Siria - FTN Associates, ENV consultant for Alcoa
Philip Massirer - FTN Associates, ENV consultant for Alcoa

In attendance with the NC DEQ Division of Water Resources (DWR):

Jeff Poupart, Section Chief - Water Quality Permitting Section (WQPS) DWR
Andrew Hargrove, Asst. General Counsel, Office of General Counsel - NCDEQ
Anna Gurney, PIO, Division of Water Resources
John Hennessy, Supervisor - Compliance & Expedited Permitting Unit WQPS DWR
Derek Denard, Environmental Specialist - Compliance & Expedited Permitting Unit
Mike Templeton, Acting Supervisor - Industrial Permitting Unit WQPS DWR
David Hill, Environmental Specialist II - Industrial Permitting Unit WQPS DWR
Corey Basinger, Regional Supervisor - WQ Regional Office Section - Mooresville RO
Andrew Pitner, Asst. Regional Supervisor - WQ Regional Office Section - Mooresville RO
Roberto Scheller, Environmental Specialist II -WQ Regional Office Section - Mooresville RO

If MS Teams is not working for us because of internet disruptions form the inclement ice storm, I have reserved 704-342-6203 as a backup. I should be able to keep my cell phone charged and call into MS Teams to see if everyone can join. Hopefully, we will have no issues. Stay safe.

Derek

Microsoft Teams meeting

Join on your computer or mobile app
Click here to join the meeting

Learn More | Meeting options

Gross, Robyn L.

Subject: Badin Park

Start: Tue 6/15/2021 9:00 AM
End: Tue 6/15/2021 10:30 AM

Recurrence: (none)

Meeting Status: Accepted

Organizer: Dowden, Doug

A meeting to discuss Badin Park.

From: Gross, Robyn L. <Robyn.Gross@alcoa.com>
Sent: Friday, June 11, 2021 11:46 AM
To: Dowden, Doug <doug.dowden@ncdenr.gov>
Subject: RE: [External] RE: Badin Lake

Doug,
Here are some options for next week:
Tuesday 6/15 - any time between 8:00 AM and 1:00 PM
Wednesday 6/16 - any time between 8:00 AM and 10:00 AM or 1:00-3:00 PM

Can you check and let me know if any will work. Also, I can send a teams invite if you'd like us to.

Thanks and have a great weekend.
Robyn

Microsoft Teams meeting

Join on your computer or mobile app
Click here to join the meeting

Join with a video conferencing device

ncgov@m.webex.com
Video Conference ID: 116 132 822 3
Alternate VTC dialing instructions

Learn More | Meeting options

Name	Attendance	Response
Dowden, Doug	Meeting Organizer	None
Gurney, Anna	Required Attendee	None
Denard, Derek	Required Attendee	None
Hill, David A	Required Attendee	None
Gross, Robyn L.	Required Attendee	None

Attachment 3

Laboratory Report – Soil & Water Samples

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-185778-1
Client Project/Site: Badin Business Park

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

Attn: Michael Worden

Authorized for release by:
7/23/2020 11:46:27 AM

Sheila Hoffman, Project Manager II
(912)250-0279
Sheila.Hoffman@Eurofinset.com

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	TAL CF
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	TAL PIT
9012A	Cyanide, Total and/or Amenable	SW846	TAL SAV
EPA 9012B	Cyanide, Total andor Amenable	SW846	TAL PIT
Moisture	Percent Moisture	EPA	TAL SAV
4500 F-B	Fluoride Distillation	SM	TAL CF
9012A	Cyanide, Total and/or Amenable, Distillation	SW846	TAL SAV
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL PIT
D3987-85	ASTM Leaching Procedure	ASTM	TAL PIT

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-185778-1
Project/Site: Badin Business Park

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
680-185778-1	ABP-TP-201 (5.8)	Solid	06/29/20 08:50	07/01/20 10:00	
680-185778-2	ABP-TP-202 (5.0)	Solid	06/29/20 09:45	07/01/20 10:00	
680-185778-3	ABP-TP-203 (6.0)	Solid	06/29/20 11:00	07/01/20 10:00	
680-185778-4	ABP-TP-204 (4.5)	Solid	06/29/20 11:40	07/01/20 10:00	
680-185778-5	ABP-TP-205 (2.0)	Solid	06/29/20 13:15	07/01/20 10:00	
680-185778-6	ABP-TP-205 (6.0)	Solid	06/29/20 13:50	07/01/20 10:00	
680-185778-7	ABP-TP-206 (2.0)	Solid	06/29/20 14:05	07/01/20 10:00	
680-185778-8	ABP-TP-206 (4.0)	Solid	06/29/20 14:20	07/01/20 10:00	
680-185778-9	ABP-TP-207 (2.0)	Solid	06/29/20 15:00	07/01/20 10:00	
680-185778-10	ABP-TP-207 (9.5)	Solid	06/29/20 15:10	07/01/20 10:00	
680-185778-11	ABP-TP-208 (2.0)	Solid	06/29/20 15:30	07/01/20 10:00	
680-185778-12	ABP-TP-208 (9.5)	Solid	06/29/20 15:40	07/01/20 10:00	

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

Job ID: 680-185778-1

Laboratory: Eurofins TestAmerica, Savannah

Narrative

CASE NARRATIVE

Client: Civil & Environmental Consultants Inc

Project: Badin Business Park

Report Number: 680-185778-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

EXCEPTION
During the Fluoride distillation for method 4500 of ABP-TP-207(2.0), a violent reaction took place that caused the distillation apparatus to explode. The laboratory determined they would be unable to distill the remaining samples, due to EHS concerns. As a result, he following samples were not analyzed for Fluoride using Fluoride distillation method 4500: ABP-TP-206 (4.0) (680-185778-8), ABP-TP-207 (2.0) (680-185778-9), ABP-TP-207 (9.5) (680-185778-10), ABP-TP-208 (2.0) (680-185778-11) and ABP-TP-208 (9 (680-185778-12).

RECEIPT
The samples were received on 07/01/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.5º C and 3.2º C.

FLUORIDE
Samples ABP-TP-201 (5.8) (680-185778-1), ABP-TP-202 (5.0) (680-185778-2), ABP-TP-203 (6.0) (680-185778-3), ABP-TP-204 (4.5) (680-185778-4), ABP-TP-205 (2.0) (680-185778-5), ABP-TP-205 (6.0) (680-185778-6), ABP-TP-206 (2.0) (680-185778-7), ABP-TP-206 (4.0) (680-185778-8), ABP-TP-207 (2.0) (680-185778-9), ABP-TP-207 (9.5) (680-185778-10), ABP-TP-208 (2.0) (680-185778-11) and ABP-TP-208 (9.5) (680-185778-12) were analyzed for fluoride in accordance with ASTM D3987-85/EPA SW-846 Method 9038. The samples were leached on 07/08/2020 and analyzed on 07/17/2020 and 07/19/2020.

Samples ABP-TP-204 (4.5) (680-185778-4)[5X], ABP-TP-206 (2.0) (680-185778-7)[10X] and ABP-TP-206 (4.0) (680-185778-8)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

TOTAL AND AMENABLE CYANIDE
Samples ABP-TP-201 (5.8) (680-185778-1), ABP-TP-202 (5.0) (680-185778-2), ABP-TP-203 (6.0) (680-185778-3), ABP-TP-204 (4.5) (680-185778-4), ABP-TP-205 (2.0) (680-185778-5), ABP-TP-205 (6.0) (680-185778-6), ABP-TP-206 (2.0) (680-185778-7), ABP-TP-206 (4.0) (680-185778-8), ABP-TP-207 (2.0) (680-185778-9), ABP-TP-207 (9.5) (680-185778-10), ABP-TP-208 (2.0) (680-185778-11) and ABP-TP-208 (9.5) (680-185778-12) were analyzed for total and amenable cyanide in accordance with EPA SW-846 Method 9012A. The samples were prepared and analyzed on 07/13/2020.

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

CYANIDE (SOLID)
Samples ABP-TP-201 (5.8) (680-185778-1), ABP-TP-202 (5.0) (680-185778-2), ABP-TP-203 (6.0) (680-185778-3), ABP-TP-204 (4.5) (680-185778-4), ABP-TP-205 (2.0) (680-185778-5), ABP-TP-205 (6.0) (680-185778-6), ABP-TP-206 (2.0) (680-185778-7), ABP-TP-206 (4.0) (680-185778-8), ABP-TP-207 (2.0) (680-185778-9), ABP-TP-207 (9.5) (680-185778-10), ABP-TP-208 (2.0) (680-185778-11) and ABP-TP-208 (9.5) (680-185778-12) were analyzed for Cyanide (Solid) in accordance with 9012B. The samples were leached on

Job ID: 680-185778-1 (Continued)

Laboratory: Eurofins TestAmerica, Savannah (Continued)

07/08/2020, and prepared and analyzed on 07/17/2020.

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

FLUORIDE

Samples ABP-TP-201 (5.8) (680-185778-1), ABP-TP-202 (5.0) (680-185778-2), ABP-TP-203 (6.0) (680-185778-3), ABP-TP-204 (4.5) (680-185778-4), ABP-TP-205 (2.0) (680-185778-5), ABP-TP-205 (6.0) (680-185778-6) and ABP-TP-206 (2.0) (680-185778-7) were analyzed for fluoride in accordance with 9056. The samples were prepared on 07/13/2020 and 07/14/2020 and analyzed on 07/14/2020.

Fluoride failed the recovery criteria low for the MS of sample ABP-TP-201 (5.8)MS (680-185778-1) in batch 310-285249.

Fluoride failed the recovery criteria low for the MSD of sample ABP-TP-201 (5.8)MSD (680-185778-1) in batch 310-285249.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

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

PERCENT SOLIDS/MOISTURE

Samples ABP-TP-201 (5.8) (680-185778-1), ABP-TP-202 (5.0) (680-185778-2), ABP-TP-203 (6.0) (680-185778-3), ABP-TP-204 (4.5) (680-185778-4), ABP-TP-205 (2.0) (680-185778-5), ABP-TP-205 (6.0) (680-185778-6), ABP-TP-206 (2.0) (680-185778-7), ABP-TP-206 (4.0) (680-185778-8), ABP-TP-207 (2.0) (680-185778-9), ABP-TP-207 (9.5) (680-185778-10), ABP-TP-208 (2.0) (680-185778-11) and ABP-TP-208 (9.5) (680-185778-12) were analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 07/09/2020.

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

Client Sample ID: ABP-TP-201 (5.8)
Lab Sample ID: 680-185778-1
Date Collected: 06/29/20 08:50
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.2**		0.10		mg/L			07/17/20 15:51	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 16:50	1

Client Sample ID: ABP-TP-201 (5.8)
Lab Sample ID: 680-185778-1
Date Collected: 06/29/20 08:50
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 84.1

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**490**		36		mg/Kg	☼	07/13/20 08:51	07/14/20 19:33	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.095**		0.068		mg/Kg	☼	07/13/20 12:50	07/13/20 15:53	1

Client Sample ID: ABP-TP-202 (5.0)
Lab Sample ID: 680-185778-2
Date Collected: 06/29/20 09:45
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.66**		0.10		mg/L			07/17/20 16:34	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 16:59	1

Client Sample ID: ABP-TP-202 (5.0)
Lab Sample ID: 680-185778-2
Date Collected: 06/29/20 09:45
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 87.9

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**320**		35		mg/Kg	☼	07/13/20 12:06	07/14/20 20:20	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.35**		0.059		mg/Kg	☼	07/13/20 12:50	07/13/20 15:53	1

Client Sample ID: ABP-TP-203 (6.0)
Lab Sample ID: 680-185778-3
Date Collected: 06/29/20 11:00
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.73**		0.10		mg/L			07/17/20 16:48	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:00	1

Client Sample ID: ABP-TP-203 (6.0)
Lab Sample ID: 680-185778-3

Date Collected: 06/29/20 11:00
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 87.1

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	280		31		mg/Kg	☼	07/13/20 12:06	07/14/20 20:36	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.52		0.063		mg/Kg	☼	07/13/20 12:50	07/13/20 15:53	1

Client Sample ID: ABP-TP-204 (4.5)
Lab Sample ID: 680-185778-4

Date Collected: 06/29/20 11:40
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	6.2		0.50		mg/L			07/19/20 02:41	5

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:02	1

Client Sample ID: ABP-TP-204 (4.5)
Lab Sample ID: 680-185778-4

Date Collected: 06/29/20 11:40
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 77.5

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	550		39		mg/Kg	☼	07/13/20 14:12	07/14/20 20:52	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.067		0.067		mg/Kg	☼	07/13/20 12:50	07/13/20 15:53	1

Client Sample ID: ABP-TP-205 (2.0)
Lab Sample ID: 680-185778-5

Date Collected: 06/29/20 13:15
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	4.8		0.10		mg/L			07/17/20 17:17	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:04	1

Client Sample ID: ABP-TP-205 (2.0)
Lab Sample ID: 680-185778-5

Date Collected: 06/29/20 13:15
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 77.0

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	190		33		mg/Kg	☼	07/13/20 14:12	07/14/20 21:09	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.071		0.071		mg/Kg	☼	07/13/20 12:50	07/13/20 16:00	1

Client Sample ID: ABP-TP-205 (6.0)
Lab Sample ID: 680-185778-6
Date Collected: 06/29/20 13:50
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**2.2**		0.10		mg/L			07/17/20 18:00	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:05	1

Client Sample ID: ABP-TP-205 (6.0)
Lab Sample ID: 680-185778-6
Date Collected: 06/29/20 13:50
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 77.2

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**610**		35		mg/Kg	☼	07/14/20 08:17	07/14/20 21:25	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.075		0.075		mg/Kg	☼	07/13/20 12:50	07/13/20 16:00	1

Client Sample ID: ABP-TP-206 (2.0)
Lab Sample ID: 680-185778-7
Date Collected: 06/29/20 14:05
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**10**		1.0		mg/L			07/19/20 02:56	10

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:07	1

Client Sample ID: ABP-TP-206 (2.0)
Lab Sample ID: 680-185778-7
Date Collected: 06/29/20 14:05
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 92.8

Method: 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**690**		32		mg/Kg	☼	07/14/20 08:17	07/14/20 21:42	10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.068**		0.058		mg/Kg	☼	07/13/20 12:50	07/13/20 16:00	1

Client Sample ID: ABP-TP-206 (4.0)
Lab Sample ID: 680-185778-8
Date Collected: 06/29/20 14:20
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**25**		1.0		mg/L			07/19/20 03:12	10

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:09	1

Client Sample ID: ABP-TP-206 (4.0)
Lab Sample ID: 680-185778-8

Date Collected: 06/29/20 14:20
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 89.2

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.13**		0.059		mg/Kg	☼	07/13/20 12:50	07/13/20 16:00	1

Client Sample ID: ABP-TP-207 (2.0)
Lab Sample ID: 680-185778-9

Date Collected: 06/29/20 15:00
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.1**		0.10		mg/L			07/17/20 18:44	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:11	1

Client Sample ID: ABP-TP-207 (2.0)
Lab Sample ID: 680-185778-9

Date Collected: 06/29/20 15:00
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 80.5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.064		0.064		mg/Kg	☼	07/13/20 12:50	07/13/20 16:00	1

Client Sample ID: ABP-TP-207 (9.5)
Lab Sample ID: 680-185778-10

Date Collected: 06/29/20 15:10
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**3.2**		0.10		mg/L			07/17/20 18:58	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:16	1

Client Sample ID: ABP-TP-207 (9.5)
Lab Sample ID: 680-185778-10

Date Collected: 06/29/20 15:10
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 79.3

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.074**		0.074		mg/Kg	☼	07/13/20 12:50	07/13/20 16:00	1

Client Sample ID: ABP-TP-208 (2.0)
Lab Sample ID: 680-185778-11

Date Collected: 06/29/20 15:30
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.7**		0.10		mg/L			07/17/20 19:13	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:17	1

Client: Civil & Environmental Consultants Inc
Job ID: 680-185778-1
Project/Site: Badin Business Park

Client Sample ID: ABP-TP-208 (2.0)
Lab Sample ID: 680-185778-11

Date Collected: 06/29/20 15:30
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 76.9

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.068		0.068		mg/Kg	☼	07/13/20 12:50	07/13/20 16:00	1

Client Sample ID: ABP-TP-208 (9.5)
Lab Sample ID: 680-185778-12

Date Collected: 06/29/20 15:40
Matrix: Solid
Date Received: 07/01/20 10:00

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.17		0.10		mg/L			07/17/20 19:27	1

General Chemistry - ASTM Leach

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 17:19	1

Client Sample ID: ABP-TP-208 (9.5)
Lab Sample ID: 680-185778-12

Date Collected: 06/29/20 15:40
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 74.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.076		0.076		mg/Kg	☼	07/13/20 12:50	07/13/20 16:00	1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-284770/1-A
Matrix: Solid
Analysis Batch: 285249

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 284770

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<28		28		mg/Kg		07/10/20 09:00	07/14/20 18:31	10

Lab Sample ID: LCS 310-284770/2-A
Matrix: Solid
Analysis Batch: 285249

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 284770

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	450	413		mg/Kg		92	90 - 110

Lab Sample ID: 680-185778-1 MS
Matrix: Solid
Analysis Batch: 285249

Client Sample ID: ABP-TP-201 (5.8)
Prep Type: Total/NA
Prep Batch: 284770

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	490		58.6	402	4	mg/Kg	☼	-151	80 - 120

Lab Sample ID: 680-185778-1 MSD
Matrix: Solid
Analysis Batch: 285249

Client Sample ID: ABP-TP-201 (5.8)
Prep Type: Total/NA
Prep Batch: 284770

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	490		57.0	461	4	mg/Kg	☼	-51	80 - 120	14	15

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 180-322104/6
Matrix: Solid
Analysis Batch: 322104

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/17/20 15:06	1

Lab Sample ID: LCS 180-322104/5
Matrix: Solid
Analysis Batch: 322104

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.50	2.47		mg/L		99	90 - 110

Lab Sample ID: MB 180-322142/42
Matrix: Solid
Analysis Batch: 322142

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/18/20 22:59	1

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 180-322142/41
Matrix: Solid
Analysis Batch: 322142

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			2.50	2.61		mg/L		105	90 - 110		

Lab Sample ID: LB 180-320750/1-A
Matrix: Solid
Analysis Batch: 322104

Client Sample ID: Method Blank
Prep Type: ASTM Leach

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/17/20 15:36	1

Lab Sample ID: 680-185778-1 MS
Matrix: Solid
Analysis Batch: 322104

Client Sample ID: ABP-TP-201 (5.8)
Prep Type: ASTM Leach

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	1.2		2.50	3.55		mg/L		95	90 - 110		

Lab Sample ID: 680-185778-1 MSD
Matrix: Solid
Analysis Batch: 322104

Client Sample ID: ABP-TP-201 (5.8)
Prep Type: ASTM Leach

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.2		2.50	3.59		mg/L		97	90 - 110	1	20

Method: 9012A - Cyanide, Total and/or Amenable

Lab Sample ID: MB 680-626052/12-A
Matrix: Solid
Analysis Batch: 626168

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 626052

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.010		0.010		mg/Kg		07/13/20 12:50	07/13/20 15:45	1

Lab Sample ID: LCS 680-626052/13-A
Matrix: Solid
Analysis Batch: 626168

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 626052

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.0500	0.0512		mg/Kg		102	75 - 125		

Lab Sample ID: 680-185778-4 MS
Matrix: Solid
Analysis Batch: 626168

Client Sample ID: ABP-TP-204 (4.5)
Prep Type: Total/NA
Prep Batch: 626052

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	<0.067		0.377	0.362		mg/Kg	☼	83	75 - 125		

Method: 9012A - Cyanide, Total and/or Amenable (Continued)

Lab Sample ID: 680-185778-4 MSD — **Client Sample ID: ABP-TP-204 (4.5)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 626168 — **Prep Batch: 626052**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	<0.067		0.340	0.343		mg/Kg	☼	87	75 - 125	5	30

Method: EPA 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 180-322056/4-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 322148 — **Prep Batch: 322056**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 16:46	1

Lab Sample ID: HLCS 180-322056/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 322148 — **Prep Batch: 322056**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	250	272		ug/L		109	90 - 110

Lab Sample ID: LCS 180-322056/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 322148 — **Prep Batch: 322056**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	200	219		ug/L		109	85 - 115

Lab Sample ID: LLCS 180-322056/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 322148 — **Prep Batch: 322056**

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	50.0	49.9		ug/L		100	90 - 110

Lab Sample ID: LB 180-320750/1-C — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: ASTM Leach**
Analysis Batch: 322148 — **Prep Batch: 322056**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<10		10		ug/L		07/17/20 12:35	07/17/20 16:48	1

Lab Sample ID: 680-185778-1 MS — **Client Sample ID: ABP-TP-201 (5.8)**
Matrix: Solid — **Prep Type: ASTM Leach**
Analysis Batch: 322148 — **Prep Batch: 322056**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	<10		200	213		ug/L		106	75 - 125

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-1

Method: EPA 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: 680-185778-1 MSD
Matrix: Solid
Analysis Batch: 322148

Client Sample ID: ABP-TP-201 (5.8)
Prep Type: ASTM Leach
Prep Batch: 322056

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	<10		200	210		ug/L		105	75 - 125	1	20

HPLC/IC

Prep Batch: 284770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	Total/NA	Solid	4500 F-B	
680-185778-2	ABP-TP-202 (5.0)	Total/NA	Solid	4500 F-B	
680-185778-3	ABP-TP-203 (6.0)	Total/NA	Solid	4500 F-B	
680-185778-4	ABP-TP-204 (4.5)	Total/NA	Solid	4500 F-B	
680-185778-5	ABP-TP-205 (2.0)	Total/NA	Solid	4500 F-B	
680-185778-6	ABP-TP-205 (6.0)	Total/NA	Solid	4500 F-B	
680-185778-7	ABP-TP-206 (2.0)	Total/NA	Solid	4500 F-B	
MB 310-284770/1-A	Method Blank	Total/NA	Solid	4500 F-B	
LCS 310-284770/2-A	Lab Control Sample	Total/NA	Solid	4500 F-B	
680-185778-1 MS	ABP-TP-201 (5.8)	Total/NA	Solid	4500 F-B	
680-185778-1 MSD	ABP-TP-201 (5.8)	Total/NA	Solid	4500 F-B	

Analysis Batch: 285249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	Total/NA	Solid	9056A	284770
680-185778-2	ABP-TP-202 (5.0)	Total/NA	Solid	9056A	284770
680-185778-3	ABP-TP-203 (6.0)	Total/NA	Solid	9056A	284770
680-185778-4	ABP-TP-204 (4.5)	Total/NA	Solid	9056A	284770
680-185778-5	ABP-TP-205 (2.0)	Total/NA	Solid	9056A	284770
680-185778-6	ABP-TP-205 (6.0)	Total/NA	Solid	9056A	284770
680-185778-7	ABP-TP-206 (2.0)	Total/NA	Solid	9056A	284770
MB 310-284770/1-A	Method Blank	Total/NA	Solid	9056A	284770
LCS 310-284770/2-A	Lab Control Sample	Total/NA	Solid	9056A	284770
680-185778-1 MS	ABP-TP-201 (5.8)	Total/NA	Solid	9056A	284770
680-185778-1 MSD	ABP-TP-201 (5.8)	Total/NA	Solid	9056A	284770

Leach Batch: 320750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	ASTM Leach	Solid	D3987-85	
680-185778-2	ABP-TP-202 (5.0)	ASTM Leach	Solid	D3987-85	
680-185778-3	ABP-TP-203 (6.0)	ASTM Leach	Solid	D3987-85	
680-185778-4	ABP-TP-204 (4.5)	ASTM Leach	Solid	D3987-85	
680-185778-5	ABP-TP-205 (2.0)	ASTM Leach	Solid	D3987-85	
680-185778-6	ABP-TP-205 (6.0)	ASTM Leach	Solid	D3987-85	
680-185778-7	ABP-TP-206 (2.0)	ASTM Leach	Solid	D3987-85	
680-185778-8	ABP-TP-206 (4.0)	ASTM Leach	Solid	D3987-85	
680-185778-9	ABP-TP-207 (2.0)	ASTM Leach	Solid	D3987-85	
680-185778-10	ABP-TP-207 (9.5)	ASTM Leach	Solid	D3987-85	
680-185778-11	ABP-TP-208 (2.0)	ASTM Leach	Solid	D3987-85	
680-185778-12	ABP-TP-208 (9.5)	ASTM Leach	Solid	D3987-85	
LB 180-320750/1-A	Method Blank	ASTM Leach	Solid	D3987-85	
680-185778-1 MS	ABP-TP-201 (5.8)	ASTM Leach	Solid	D3987-85	
680-185778-1 MSD	ABP-TP-201 (5.8)	ASTM Leach	Solid	D3987-85	

Analysis Batch: 322104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-2	ABP-TP-202 (5.0)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-3	ABP-TP-203 (6.0)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-5	ABP-TP-205 (2.0)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-6	ABP-TP-205 (6.0)	ASTM Leach	Solid	EPA 300.0 R2.1	320750

HPLC/IC (Continued)

Analysis Batch: 322104 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-9	ABP-TP-207 (2.0)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-10	ABP-TP-207 (9.5)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-11	ABP-TP-208 (2.0)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-12	ABP-TP-208 (9.5)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
LB 180-320750/1-A	Method Blank	ASTM Leach	Solid	EPA 300.0 R2.1	320750
MB 180-322104/6	Method Blank	Total/NA	Solid	EPA 300.0 R2.1	
LCS 180-322104/5	Lab Control Sample	Total/NA	Solid	EPA 300.0 R2.1	
680-185778-1 MS	ABP-TP-201 (5.8)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-1 MSD	ABP-TP-201 (5.8)	ASTM Leach	Solid	EPA 300.0 R2.1	320750

Analysis Batch: 322142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-4	ABP-TP-204 (4.5)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-7	ABP-TP-206 (2.0)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
680-185778-8	ABP-TP-206 (4.0)	ASTM Leach	Solid	EPA 300.0 R2.1	320750
MB 180-322142/42	Method Blank	Total/NA	Solid	EPA 300.0 R2.1	
LCS 180-322142/41	Lab Control Sample	Total/NA	Solid	EPA 300.0 R2.1	

General Chemistry

Leach Batch: 320750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	ASTM Leach	Solid	D3987-85	
680-185778-2	ABP-TP-202 (5.0)	ASTM Leach	Solid	D3987-85	
680-185778-3	ABP-TP-203 (6.0)	ASTM Leach	Solid	D3987-85	
680-185778-4	ABP-TP-204 (4.5)	ASTM Leach	Solid	D3987-85	
680-185778-5	ABP-TP-205 (2.0)	ASTM Leach	Solid	D3987-85	
680-185778-6	ABP-TP-205 (6.0)	ASTM Leach	Solid	D3987-85	
680-185778-7	ABP-TP-206 (2.0)	ASTM Leach	Solid	D3987-85	
680-185778-8	ABP-TP-206 (4.0)	ASTM Leach	Solid	D3987-85	
680-185778-9	ABP-TP-207 (2.0)	ASTM Leach	Solid	D3987-85	
680-185778-10	ABP-TP-207 (9.5)	ASTM Leach	Solid	D3987-85	
680-185778-11	ABP-TP-208 (2.0)	ASTM Leach	Solid	D3987-85	
680-185778-12	ABP-TP-208 (9.5)	ASTM Leach	Solid	D3987-85	
LB 180-320750/1-C	Method Blank	ASTM Leach	Solid	D3987-85	
680-185778-1 MS	ABP-TP-201 (5.8)	ASTM Leach	Solid	D3987-85	
680-185778-1 MSD	ABP-TP-201 (5.8)	ASTM Leach	Solid	D3987-85	

Prep Batch: 322056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	ASTM Leach	Solid	9012B	320750
680-185778-2	ABP-TP-202 (5.0)	ASTM Leach	Solid	9012B	320750
680-185778-3	ABP-TP-203 (6.0)	ASTM Leach	Solid	9012B	320750
680-185778-4	ABP-TP-204 (4.5)	ASTM Leach	Solid	9012B	320750
680-185778-5	ABP-TP-205 (2.0)	ASTM Leach	Solid	9012B	320750
680-185778-6	ABP-TP-205 (6.0)	ASTM Leach	Solid	9012B	320750
680-185778-7	ABP-TP-206 (2.0)	ASTM Leach	Solid	9012B	320750
680-185778-8	ABP-TP-206 (4.0)	ASTM Leach	Solid	9012B	320750
680-185778-9	ABP-TP-207 (2.0)	ASTM Leach	Solid	9012B	320750
680-185778-10	ABP-TP-207 (9.5)	ASTM Leach	Solid	9012B	320750
680-185778-11	ABP-TP-208 (2.0)	ASTM Leach	Solid	9012B	320750

General Chemistry (Continued)

Prep Batch: 322056 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-12	ABP-TP-208 (9.5)	ASTM Leach	Solid	9012B	320750
LB 180-320750/1-C	Method Blank	ASTM Leach	Solid	9012B	320750
MB 180-322056/4-A	Method Blank	Total/NA	Solid	9012B	
HLCS 180-322056/2-A	Lab Control Sample	Total/NA	Solid	9012B	
LCS 180-322056/3-A	Lab Control Sample	Total/NA	Solid	9012B	
LLCS 180-322056/1-A	Lab Control Sample	Total/NA	Solid	9012B	
680-185778-1 MS	ABP-TP-201 (5.8)	ASTM Leach	Solid	9012B	320750
680-185778-1 MSD	ABP-TP-201 (5.8)	ASTM Leach	Solid	9012B	320750

Analysis Batch: 322148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-2	ABP-TP-202 (5.0)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-3	ABP-TP-203 (6.0)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-4	ABP-TP-204 (4.5)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-5	ABP-TP-205 (2.0)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-6	ABP-TP-205 (6.0)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-7	ABP-TP-206 (2.0)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-8	ABP-TP-206 (4.0)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-9	ABP-TP-207 (2.0)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-10	ABP-TP-207 (9.5)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-11	ABP-TP-208 (2.0)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-12	ABP-TP-208 (9.5)	ASTM Leach	Solid	EPA 9012B	322056
LB 180-320750/1-C	Method Blank	ASTM Leach	Solid	EPA 9012B	322056
MB 180-322056/4-A	Method Blank	Total/NA	Solid	EPA 9012B	322056
HLCS 180-322056/2-A	Lab Control Sample	Total/NA	Solid	EPA 9012B	322056
LCS 180-322056/3-A	Lab Control Sample	Total/NA	Solid	EPA 9012B	322056
LLCS 180-322056/1-A	Lab Control Sample	Total/NA	Solid	EPA 9012B	322056
680-185778-1 MS	ABP-TP-201 (5.8)	ASTM Leach	Solid	EPA 9012B	322056
680-185778-1 MSD	ABP-TP-201 (5.8)	ASTM Leach	Solid	EPA 9012B	322056

Analysis Batch: 625595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	Total/NA	Solid	Moisture	
680-185778-2	ABP-TP-202 (5.0)	Total/NA	Solid	Moisture	
680-185778-3	ABP-TP-203 (6.0)	Total/NA	Solid	Moisture	
680-185778-4	ABP-TP-204 (4.5)	Total/NA	Solid	Moisture	
680-185778-5	ABP-TP-205 (2.0)	Total/NA	Solid	Moisture	
680-185778-6	ABP-TP-205 (6.0)	Total/NA	Solid	Moisture	
680-185778-7	ABP-TP-206 (2.0)	Total/NA	Solid	Moisture	
680-185778-8	ABP-TP-206 (4.0)	Total/NA	Solid	Moisture	
680-185778-9	ABP-TP-207 (2.0)	Total/NA	Solid	Moisture	
680-185778-10	ABP-TP-207 (9.5)	Total/NA	Solid	Moisture	
680-185778-11	ABP-TP-208 (2.0)	Total/NA	Solid	Moisture	
680-185778-12	ABP-TP-208 (9.5)	Total/NA	Solid	Moisture	

Prep Batch: 626052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	Total/NA	Solid	9012A	
680-185778-2	ABP-TP-202 (5.0)	Total/NA	Solid	9012A	
680-185778-3	ABP-TP-203 (6.0)	Total/NA	Solid	9012A	

General Chemistry (Continued)

Prep Batch: 626052 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-4	ABP-TP-204 (4.5)	Total/NA	Solid	9012A	
680-185778-5	ABP-TP-205 (2.0)	Total/NA	Solid	9012A	
680-185778-6	ABP-TP-205 (6.0)	Total/NA	Solid	9012A	
680-185778-7	ABP-TP-206 (2.0)	Total/NA	Solid	9012A	
680-185778-8	ABP-TP-206 (4.0)	Total/NA	Solid	9012A	
680-185778-9	ABP-TP-207 (2.0)	Total/NA	Solid	9012A	
680-185778-10	ABP-TP-207 (9.5)	Total/NA	Solid	9012A	
680-185778-11	ABP-TP-208 (2.0)	Total/NA	Solid	9012A	
680-185778-12	ABP-TP-208 (9.5)	Total/NA	Solid	9012A	
MB 680-626052/12-A	Method Blank	Total/NA	Solid	9012A	
LCS 680-626052/13-A	Lab Control Sample	Total/NA	Solid	9012A	
680-185778-4 MS	ABP-TP-204 (4.5)	Total/NA	Solid	9012A	
680-185778-4 MSD	ABP-TP-204 (4.5)	Total/NA	Solid	9012A	

Analysis Batch: 626168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185778-1	ABP-TP-201 (5.8)	Total/NA	Solid	9012A	626052
680-185778-2	ABP-TP-202 (5.0)	Total/NA	Solid	9012A	626052
680-185778-3	ABP-TP-203 (6.0)	Total/NA	Solid	9012A	626052
680-185778-4	ABP-TP-204 (4.5)	Total/NA	Solid	9012A	626052
680-185778-5	ABP-TP-205 (2.0)	Total/NA	Solid	9012A	626052
680-185778-6	ABP-TP-205 (6.0)	Total/NA	Solid	9012A	626052
680-185778-7	ABP-TP-206 (2.0)	Total/NA	Solid	9012A	626052
680-185778-8	ABP-TP-206 (4.0)	Total/NA	Solid	9012A	626052
680-185778-9	ABP-TP-207 (2.0)	Total/NA	Solid	9012A	626052
680-185778-10	ABP-TP-207 (9.5)	Total/NA	Solid	9012A	626052
680-185778-11	ABP-TP-208 (2.0)	Total/NA	Solid	9012A	626052
680-185778-12	ABP-TP-208 (9.5)	Total/NA	Solid	9012A	626052
MB 680-626052/12-A	Method Blank	Total/NA	Solid	9012A	626052
LCS 680-626052/13-A	Lab Control Sample	Total/NA	Solid	9012A	626052
680-185778-4 MS	ABP-TP-204 (4.5)	Total/NA	Solid	9012A	626052
680-185778-4 MSD	ABP-TP-204 (4.5)	Total/NA	Solid	9012A	626052

Client Sample ID: ABP-TP-201 (5.8)

Lab Sample ID: 680-185778-1

Date Collected: 06/29/20 08:50

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.35 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 15:51	EPS	TAL PIT
	Instrument ID: CHICS2000									
ASTM Leach	Leach	D3987-85			100.35 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 16:50	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: ABP-TP-201 (5.8)

Lab Sample ID: 680-185778-1

Date Collected: 06/29/20 08:50

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4500 F-B			10.192 mL	310 mL	284770	07/13/20 08:51	LBB	TAL CF
Total/NA	Analysis	9056A		10	10 mL	10 mL	285249	07/14/20 19:33	ACJ	TAL CF
	Instrument ID: Ophelia									
Total/NA	Prep	9012A			1.0509 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 15:53	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-202 (5.0)

Lab Sample ID: 680-185778-2

Date Collected: 06/29/20 09:45

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.35 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 16:34	EPS	TAL PIT
	Instrument ID: CHICS2000									
ASTM Leach	Leach	D3987-85			100.35 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 16:59	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: ABP-TP-202 (5.0)

Lab Sample ID: 680-185778-2

Date Collected: 06/29/20 09:45

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4500 F-B			10.028 mL	310 mL	284770	07/13/20 12:06	LBB	TAL CF
Total/NA	Analysis	9056A		10	10 mL	10 mL	285249	07/14/20 20:20	ACJ	TAL CF
	Instrument ID: Ophelia									

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-1

Client Sample ID: ABP-TP-202 (5.0)

Lab Sample ID: 680-185778-2

Date Collected: 06/29/20 09:45
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 87.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			1.1501 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 15:53	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-203 (6.0)

Lab Sample ID: 680-185778-3

Date Collected: 06/29/20 11:00
Matrix: Solid
Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.58 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 16:48	EPS	TAL PIT
	Instrument ID: CHICS2000									
ASTM Leach	Leach	D3987-85			100.58 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:00	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: ABP-TP-203 (6.0)

Lab Sample ID: 680-185778-3

Date Collected: 06/29/20 11:00
Matrix: Solid
Date Received: 07/01/20 10:00
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4500 F-B			10.671 mL	290 mL	284770	07/13/20 12:06	LBB	TAL CF
Total/NA	Analysis	9056A		10	10 mL	10 mL	285249	07/14/20 20:36	ACJ	TAL CF
	Instrument ID: Ophelia									
Total/NA	Prep	9012A			1.0857 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 15:53	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-204 (4.5)

Lab Sample ID: 680-185778-4

Date Collected: 06/29/20 11:40
Matrix: Solid
Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.52 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		5			322142	07/19/20 02:41	EPS	TAL PIT
	Instrument ID: CHIC2100A									
ASTM Leach	Leach	D3987-85			100.52 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:02	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-1

Client Sample ID: ABP-TP-204 (4.5)

Lab Sample ID: 680-185778-4

Date Collected: 06/29/20 11:40
Date Received: 07/01/20 10:00

Matrix: Solid
Percent Solids: 77.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4500 F-B			10.000 mL	305 mL	284770	07/13/20 14:12	LBB	TAL CF
Total/NA	Analysis	9056A		10	10 mL	10 mL	285249	07/14/20 20:52	ACJ	TAL CF
	Instrument ID: Ophelia									
Total/NA	Prep	9012A			1.1631 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 15:53	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-205 (2.0)

Lab Sample ID: 680-185778-5

Date Collected: 06/29/20 13:15
Date Received: 07/01/20 10:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.14 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 17:17	EPS	TAL PIT
	Instrument ID: CHICS2000									
ASTM Leach	Leach	D3987-85			100.14 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:04	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: ABP-TP-205 (2.0)

Lab Sample ID: 680-185778-5

Date Collected: 06/29/20 13:15
Date Received: 07/01/20 10:00

Matrix: Solid
Percent Solids: 77.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4500 F-B			10.682 mL	275 mL	284770	07/13/20 14:12	LBB	TAL CF
Total/NA	Analysis	9056A		10	10 mL	10 mL	285249	07/14/20 21:09	ACJ	TAL CF
	Instrument ID: Ophelia									
Total/NA	Prep	9012A			1.1028 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 16:00	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-205 (6.0)

Lab Sample ID: 680-185778-6

Date Collected: 06/29/20 13:50
Date Received: 07/01/20 10:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.08 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 18:00	EPS	TAL PIT
	Instrument ID: CHICS2000									
ASTM Leach	Leach	D3987-85			100.08 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:05	CMR	TAL PIT
	Instrument ID: SEAL2									

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-1

Client Sample ID: ABP-TP-205 (6.0)

Lab Sample ID: 680-185778-6

Date Collected: 06/29/20 13:50

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV

Client Sample ID: ABP-TP-205 (6.0)

Lab Sample ID: 680-185778-6

Date Collected: 06/29/20 13:50

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4500 F-B			10.773 mL	295 mL	284770	07/14/20 08:17	LBB	TAL CF
Total/NA	Analysis	9056A		10	10 mL	10 mL	285249	07/14/20 21:25	ACJ	TAL CF
	Instrument ID: Ophelia									
Total/NA	Prep	9012A			1.0325 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 16:00	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-206 (2.0)

Lab Sample ID: 680-185778-7

Date Collected: 06/29/20 14:05

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.27 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		10			322142	07/19/20 02:56	EPS	TAL PIT
	Instrument ID: CHIC2100A									
ASTM Leach	Leach	D3987-85			100.27 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:07	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: ABP-TP-206 (2.0)

Lab Sample ID: 680-185778-7

Date Collected: 06/29/20 14:05

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 92.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	4500 F-B			10.091 mL	300 mL	284770	07/14/20 08:17	LBB	TAL CF
Total/NA	Analysis	9056A		10	10 mL	10 mL	285249	07/14/20 21:42	ACJ	TAL CF
	Instrument ID: Ophelia									
Total/NA	Prep	9012A			1.1134 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 16:00	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-206 (4.0)

Lab Sample ID: 680-185778-8

Date Collected: 06/29/20 14:20

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.05 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		10			322142	07/19/20 03:12	EPS	TAL PIT
	Instrument ID: CHIC2100A									
ASTM Leach	Leach	D3987-85			100.05 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:09	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: ABP-TP-206 (4.0)

Lab Sample ID: 680-185778-8

Date Collected: 06/29/20 14:20

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			1.1388 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 16:00	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-207 (2.0)

Lab Sample ID: 680-185778-9

Date Collected: 06/29/20 15:00

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.08 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 18:44	EPS	TAL PIT
	Instrument ID: CHICS2000									
ASTM Leach	Leach	D3987-85			100.08 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:11	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: ABP-TP-207 (2.0)

Lab Sample ID: 680-185778-9

Date Collected: 06/29/20 15:00

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			1.1619 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 16:00	JER	TAL SAV
	Instrument ID: KONELAB4									

Client Sample ID: ABP-TP-207 (9.5)

Lab Sample ID: 680-185778-10

Date Collected: 06/29/20 15:10

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.64 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 18:58	EPS	TAL PIT
	Instrument ID:	CHICS2000								
ASTM Leach	Leach	D3987-85			100.64 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:16	CMR	TAL PIT
	Instrument ID:	SEAL2								
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID:	NOEQUIP								

Client Sample ID: ABP-TP-207 (9.5)

Lab Sample ID: 680-185778-10

Date Collected: 06/29/20 15:10

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			1.0212 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 16:00	JER	TAL SAV
	Instrument ID:	KONELAB4								

Client Sample ID: ABP-TP-208 (2.0)

Lab Sample ID: 680-185778-11

Date Collected: 06/29/20 15:30

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.06 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 19:13	EPS	TAL PIT
	Instrument ID:	CHICS2000								
ASTM Leach	Leach	D3987-85			100.06 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:17	CMR	TAL PIT
	Instrument ID:	SEAL2								
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID:	NOEQUIP								

Client Sample ID: ABP-TP-208 (2.0)

Lab Sample ID: 680-185778-11

Date Collected: 06/29/20 15:30

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 76.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			1.1403 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 16:00	JER	TAL SAV
	Instrument ID:	KONELAB4								

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-1

Client Sample ID: ABP-TP-208 (9.5)

Lab Sample ID: 680-185778-12

Date Collected: 06/29/20 15:40

Matrix: Solid

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
ASTM Leach	Leach	D3987-85			100.08 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Analysis	EPA 300.0 R2.1		1			322104	07/17/20 19:27	EPS	TAL PIT
	Instrument ID: CHICS2000									
ASTM Leach	Leach	D3987-85			100.08 g	2000 mL	320750	07/08/20 16:30	GRN	TAL PIT
ASTM Leach	Prep	9012B			6 mL	6 mL	322056	07/17/20 12:35	CMR	TAL PIT
ASTM Leach	Analysis	EPA 9012B		1			322148	07/17/20 17:19	CMR	TAL PIT
	Instrument ID: SEAL2									
Total/NA	Analysis	Moisture		1			625595	07/09/20 07:15	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: ABP-TP-208 (9.5)

Lab Sample ID: 680-185778-12

Date Collected: 06/29/20 15:40

Matrix: Solid

Date Received: 07/01/20 10:00

Percent Solids: 74.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	9012A			1.0651 g	6 mL	626052	07/13/20 12:50	JER	TAL SAV
Total/NA	Analysis	9012A		1			626168	07/13/20 16:00	JER	TAL SAV
	Instrument ID: KONELAB4									

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Charlotte 229

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Matt Gunther	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 680-116295-44499.1
Client Contact: Michael Worden	Phone: 910-876-0601	E-Mail: sheila.hoffman@testamericainc.com		Page: Page 1 of 2
Company: Civil & Environmental Consultants Inc				Job #:
Address: 2704 Cherokee Farm Way Suite 101	Due Date Requested: Standard			
City: Knoxville	TAT Requested (days): Standard			
State, Zip: TN, 37920				
Phone:	PO #: 270546878TRF			
Email: mworden@cecinc.com	WO #: 300-226 0006			
Project Name: Alcoa - Badin, NC - Cyanide Project	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012A - SPLP Cyanide (DI Leach)	9012A - Total Cyanide	9056A_ORGFM_28D - Total Fluoride	340.2 - SPLP Fluoride	300_ORGFM_28D - Fluoride	6010D - Metals	8270E - Semivolatiles	8260D - Volatiles	1030, 9012B, 9034, 9045D	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	N	N	N	N	N		
ABP-TP-201(5.8)	6-29	0850	C	Solid			X	X	X	X								
ABP-TP-202(5.0)	6-29	0945	C	Solid			X	X	X	X								
ABP-TP-203(6.0)	6-29	1100	C	Solid			X	X	X	X								
ABP-TP-204(4.5)	6-29	1140	C	Solid			X	X	X	X								
ABP-TP-205(2.0)	6-29	1315	C	Solid			X	X	X	X								
ABP-TP-205(6.0)	6-29	1350	C	Solid			X	X	X	X								
ABP-TP-206(2.0)	6-29	1405	C	Solid			X	X	X	X								
ABP-TP-206(4.0)	6-29	1420	C	Solid			X	X	X	X								
ABP-TP-207(2.0)	6-29	1500	C	Solid			X	X	X	X								
ABP-TP-207(9.5)	6-29	1510	C	Solid			X	X	X	X								
ABP-TP-208(2.0)	6-29	1530	C	Solid			X	X	X	X								

680-185778 Chain of Custody

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Matt Gunther	6-30-20/1430		C Bonham	6/30/20 1430	
C Bonham	6/30/20 1540			7-1-2020/1000	S/U
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.8/3.2, 2.1/2.5

Ver: 01/16/2019

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

Charlotte 229 — eurofins Environment Testing America

Client Information	Sampler: Matt Ginther	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 680-116295-44499.2
Client Contact: Michael Worden	Phone: 910-876-0601	E-Mail: sheila.hoffman@testamericainc.com		Page: Page 2 of ~~2~~
Company: Civil & Environmental Consultants Inc				Job #:
Address: 2704 Cherokee Farm Way Suite 101	Due Date Requested: Standard			
City: Knoxville	TAT Requested (days): Standard			
State, Zip: TN, 37920				
Phone:	PO #: 270546878TRF			
Email: mworden@cecinc.com	WO #: 300-226.0006			
Project Name: Alcoa - Badin, NC - Cyanide Project	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012A - SPLP Cyanide (CDT 1each)	9012A - Total Cyanide	9056A_ORGFM_28D - Total Fluoride	340.2 - SPLP Fluoride	300_ORGFM_28D - Fluoride	6010D - Metals	8270E - Semivolatiles	8260D - Volatiles	1030, 9012B, 9034, 9045D	7470A - Mercury	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N	N	N	N	N	N		
ABP-TP-208(9.5)	6-29	1540	C	Solid			X	X	X	X								
~~ABP-TP~~				Solid														
~~ABP-TP~~				Solid														
~~ABP-TP~~				Solid														
~~ABP-TP~~				Solid														
~~ABP-TP~~				Solid														
~~ABP-TP~~				Solid														
~~ABP-TP~~				Solid														
~~ABP-TP~~				Solid														
~~ABP-TP~~				Water														
~~ABP-TP~~				Water														

Loc: 680
185778

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: Matt Ginther	Date/Time: 6-30-20/ 1430	Company	Received by: C Bonham	Date/Time: 6/30/20 1430	Company
Relinquished by: C Bonham	Date/Time: 6/30/20 1510	Company	Received by:	Date/Time: 7-1-20/1000	Company: SW
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.8/3.2, 2.1/2.5

Ver: 01/16/2019

Do Not Lift If

1 10:30 0371 07.07

eurofins | RT97

E FZ ent Testing
Tes merica

Part # 159469-434 RIT2 EXP 04/21

ORIGIN ID:SAVA (912) 354-7858
SHIPPING
EUROFINS/TESTAMERICA
5102 LA ROUCHE AVE

SAVANNAH, GA 31404
UNITED STATES US

SHIP DATE: 06JUL20
ACTWGT: 50.00 LB MAN
CAD: 0801261/CAFE3313

BILL RECIPIENT

TO CUSTODY
TESTAMERICA LABORATORIES
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH PA 15238
(412) 963-7058
REF: SO 680-116524

FedEx Express

TRK# 0201 1328 9410 0371

TUE - 07 JUL 10:30A
PRIORITY OVERNIGHT

XH AGCA

15238
PA-US PIT

Uncorrected temp 25 °C
Thermometer ID 14
CF .0 Initials JJ
PT-WI-SR-001 effective 7/26/13

7/23/2020

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

2BB

Chain of Custody Record

680-185778 Chain of Custody

Eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hoffman, Sheila B	lo: 16517.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sheila.hoffman@testamericainc.com	North Carolina
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - North Carolina (WW/SW)	Page 1 of 2
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 7/14/2020		Job #: 680-185778-1
City: Pittsburgh	TAT Requested (days):		
State, Zip: PA, 15238			
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:		
Email:	WO #:		
Project Name: Badin Business Park	Project #: 68024105		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012B/ASTM_LEACH_NP SPLP Cyanide	300_ORGFM_28D/ASTM_LEACH_NP (MOD) SPLP Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
ABP-TP-201 (5.8) (680-185778-1)	6/29/20	08:50 Eastern		Solid			X	X	1	
ABP-TP-202 (5.0) (680-185778-2)	6/29/20	09:45 Eastern		Solid			X	X	1	
ABP-TP-203 (6.0) (680-185778-3)	6/29/20	11:00 Eastern		Solid			X	X	1	
ABP-TP-204 (4.5) (680-185778-4)	6/29/20	11:40 Eastern		Solid			X	X	1	
ABP-TP-205 (2.0) (680-185778-5)	6/29/20	13:15 Eastern		Solid			X	X	1	
ABP-TP-205 (6.0) (680-185778-6)	6/29/20	13:50 Eastern		Solid			X	X	1	
ABP-TP-206 (2.0) (680-185778-7)	6/29/20	14:05 Eastern		Solid			X	X	1	
ABP-TP-206 (4.0) (680-185778-8)	6/29/20	14:20 Eastern		Solid			X	X	1	
ABP-TP-207 (2.0) (680-185778-9)	6/29/20	15:00 Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 7/6/20 1108	Company: FW.	Received by:	Date/Time: 7/7/20 0900	Company:
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 680-616517.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: sheila.hoffman@testamericainc.com	State of Origin: North Carolina	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - North Carolina (WW/SW)		Job #: 680-185778-1
Address: 301 Alpha Drive, RIDC Park,	Due Date Requested: 7/14/2020			
City: Pittsburgh	TAT Requested (days):			
State, Zip: PA, 15238				
Phone: 412-963-7058(Tel) 412-963-2468(Fax)	PO #:			
Email:	WO #:			
Project Name: Badin Business Park	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9012B/ASTM_LEACH_NP SPLP Cyanide	300_ORGFM_28D/ASTM_LEACH_NP (MOD) SPLP Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
ABP-TP-207 (9.5) (680-185778-10)	6/29/20	15:10 Eastern		Solid			X	X	1	
ABP-TP-208 (2.0) (680-185778-11)	6/29/20	15:30 Eastern		Solid			X	X	1	
ABP-TP-208 (9.5) (680-185778-12)	6/29/20	15:40 Eastern		Solid			X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	07-06-20 1108	Sav.	[signature]	7/7/20 1000	[illegible]
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

eurofins | Environment Testing TestAmerica

680-185778 Chain of Custody

Cooler/Sample Receipt and Tempera[illegible] Log Form

Client Information

Client: TA Savannah

City/State: CITY Savannah STATE GA | Project: Badin Business Park

Receipt Information

Date/Time Received: DATE 7/7/20 TIME 1000 | Received By: SJ

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # ____ of ____
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: M | Correction Factor (°C): TD1

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.2 | Corrected Temp (°C): 2.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 680-616514.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sheila.hoffman@testamericainc.com	State of Origin: North Carolina	Page: Page 1 of 2
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): State - North Carolina (WW/SW)		Job #: 680-185778-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/14/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Badin Business Park	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/4500_F_B Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ABP-TP-201 (5.8) (680-185778-1)	6/29/20	08:50 Eastern		Solid			X	1	
ABP-TP-202 (5.0) (680-185778-2)	6/29/20	09:45 Eastern		Solid			X	1	
ABP-TP-203 (6.0) (680-185778-3)	6/29/20	11:00 Eastern		Solid			X	1	
ABP-TP-204 (4.5) (680-185778-4)	6/29/20	11:40 Eastern		Solid			X	1	
ABP-TP-205 (2.0) (680-185778-5)	6/29/20	13:15 Eastern		Solid			X	1	
ABP-TP-205 (6.0) (680-185778-6)	6/29/20	13:50 Eastern		Solid			X	1	
ABP-TP-206 (2.0) (680-185778-7)	6/29/20	14:05 Eastern		Solid			X	1	
ABP-TP-206 (4.0) (680-185778-8)	6/29/20	14:20 Eastern		Solid			X	1	
ABP-TP-207 (2.0) (680-185778-9)	6/29/20	15:00 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	070620 1047	Sw.	[signature]	7/7/20 1000	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 680-616514.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: sheila.hoffman@testamericainc.com	State of Origin: North Carolina	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): State - North Carolina (WW/SW)		Job #: 680-185778-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/14/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Badin Business Park	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9056A_ORGFM_28D/4500_F_B Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ABP-TP-207 (9.5) (680-185778-10)	6/29/20	15:10 Eastern		Solid			X	1	
ABP-TP-208 (2.0) (680-185778-11)	6/29/20	15:30 Eastern		Solid			X	1	
ABP-TP-208 (9.5) (680-185778-12)	6/29/20	15:40 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	07-06-20 1047	Sav	[signature]	7/7/20 1000	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 680-185778-1

Login Number: 185778

List Source: Eurofins TestAmerica, Savannah

List Number: 1

Creator: Banda, Christy S

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

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 680-185778-1

Login Number: 185778
List Number: 3
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 07/07/20 11:43 AM

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

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 680-185778-1

Login Number: 185778
List Number: 2
Creator: Say, Thomas C

List Source: Eurofins TestAmerica, Pittsburgh
List Creation: 07/07/20 11:19 AM

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

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-185778-1
Project/Site: Badin Business Park

Laboratory: Eurofins TestAmerica, Savannah

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

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	269	12-31-20

Laboratory: Eurofins TestAmerica, Cedar Falls

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
AIHA-LAP, LLC	Industrial Hygiene Laboratory Accreditation Program (IHLAP)	101044	11-01-20
Colorado	Petroleum Storage Tank Program	IA100001 (OR)	09-29-20
Georgia	State	IA100001 (OR)	09-29-20
Illinois	NELAP	200024	11-29-20
Iowa	State	007	12-01-21
Kansas	NELAP	E-10341	01-31-21
Minnesota	NELAP	019-999-319	12-31-20
Minnesota (Petrofund)	State	3349	08-22-21
North Dakota	State	R-186	09-30-20
Oregon	NELAP	IA100001	09-29-20
USDA	US Federal Programs	P330-19-00003	01-02-22

Laboratory: Eurofins TestAmerica, Pittsburgh

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-21
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-20
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-20
Nevada	State	PA00164	07-31-20
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	04-01-21
North Carolina (WW/SW)	State	434	01-01-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-21
Pennsylvania	NELAP	02-00416	05-23-21
Rhode Island	State	LAO00362	12-31-20
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-15-20

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-185778-1
Project/Site: Badin Business Park

Laboratory: Eurofins TestAmerica, Pittsburgh (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
West Virginia DEP	State	142	02-01-21
Wisconsin	State	998027800	08-31-20

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-185778-2
Client Project/Site: Badin Business Park

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

Attn: Michael Worden

Authorized for release by:
8/20/2020 3:34:29 PM

Sheila Hoffman, Project Manager II
(912)250-0279
Sheila.Hoffman@Eurofinset.com

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-2

Method	Method Description	Protocol	Laboratory
Subcontract	ASMTD3761/EPA 9056 FI	None	GeochemTes

Protocol References:

None = None

Laboratory References:

GeochemTes = Geochemical Testing Inc., 2005 North Center Avenue, Somerset, PA 15501

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
680-185778-1	ABP-TP-201 (5.8)	Solid	06/29/20 08:50	07/01/20 10:00	
680-185778-2	ABP-TP-202 (5.0)	Solid	06/29/20 09:45	07/01/20 10:00	
680-185778-3	ABP-TP-203 (6.0)	Solid	06/29/20 11:00	07/01/20 10:00	
680-185778-4	ABP-TP-204 (4.5)	Solid	06/29/20 11:40	07/01/20 10:00	
680-185778-5	ABP-TP-205 (2.0)	Solid	06/29/20 13:15	07/01/20 10:00	
680-185778-6	ABP-TP-205 (6.0)	Solid	06/29/20 13:50	07/01/20 10:00	
680-185778-7	ABP-TP-206 (2.0)	Solid	06/29/20 14:05	07/01/20 10:00	
680-185778-8	ABP-TP-206 (4.0)	Solid	06/29/20 14:20	07/01/20 10:00	
680-185778-9	ABP-TP-207 (2.0)	Solid	06/29/20 15:00	07/01/20 10:00	
680-185778-10	ABP-TP-207 (9.5)	Solid	06/29/20 15:10	07/01/20 10:00	
680-185778-11	ABP-TP-208 (2.0)	Solid	06/29/20 15:30	07/01/20 10:00	
680-185778-12	ABP-TP-208 (9.5)	Solid	06/29/20 15:40	07/01/20 10:00	

Case Narrative

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185778-2

Job ID: 680-185778-2

Laboratory: Eurofins TestAmerica, Savannah

Narrative

Job Narrative
680-185778-2

Comments
No additional comments.

Receipt
The samples were received on 7/1/2020 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.5º C and 3.2º C.

Subcontract Work
Method ASMTD3761/EPA 9056 FI: This method was subcontracted to Geochemical Testing Inc.. The subcontract laboratory certification is different from that of the facility issuing the final report.

GEOCHEMICAL TESTING
Environmental and Energy Analysis

2005 N. Center Ave.
Somerset, PA 15501

814/443-1671
814/445-6666
FAX: 814/445-6729

Thursday, August 20, 2020

Sheila Hoffman
TEST AMERICA - PGH
301 ALPHA DRIVE
RIDC PARK
PITTSBURGH, PA 15238

Order No.: G2008378

Dear Sheila Hoffman:

Geochemical Testing received 13 sample(s) on 8/6/2020 for the analyses presented in the following report.

There were no problems with sample receipt protocols and analyses met the TNI/NELAC, EPA, and laboratory specifications except where noted in the Case Narrative or Laboratory Results.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Timothy W. Bergstresser
Director of Technical Services

Report(s) To:
DAVE DUNLAP

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306PA DEP

Geochemical Testing

Date: *20-Aug-20*

CLIENT: TEST AMERICA - PGH
Project:
Lab Order: G2008378 PWS: 0

CASE NARRATIVE

No problems were encountered during analysis of this workorder, except if noted in this report.

Legend:

H - Method Hold Time exceeded and is not compliant with 40CFR136 Table II.
U - The analyte was not detected at or above the listed concentration, which is below the laboratory quantitation limit.
B - Analyte detected in the associated Method Blank
Q1 - See case narrative ND - Not Detected
MCL - Contaminant Limit J - Indicates an estimated value.
Q - Qualifier QL -Quantitation Limit DF - Dilution Factor
S - Surrogate Recovery outside accepted recovery limits
T - Sample received above required temperature and is not compliant with 40CFR136 Table II.
T1 - Sample received above required temperature
MDA - Minimum Detectable Activity.
** - Value exceeds Action Limit
TICs - Tentatively Identified Compounds.
E - Value above quantitation range

ACCREDITED IN ACCORDANCE WITH nelac
I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-1
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-001	**Collection Date:**	6/29/2020 8:50:00 AM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **CKT**				**ASTM D 3761**	**EPA 9056A**
Fluorine	122	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/14/20 1:46 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-2
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-002	**Collection Date:**	6/29/2020 9:45:00 AM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **CKT**				**ASTM D 3761**	**EPA 9056A**
Fluorine	139	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/14/20 1:46 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-3
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-003	**Collection Date:**	6/29/2020 11:00:00 AM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **CKT**				**ASTM D 3761**	**EPA 9056A**
Fluorine	74	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/14/20 1:46 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-4
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-004	**Collection Date:**	6/29/2020 11:40:00 AM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **CKT**				**ASTM D 3761**	**EPA 9056A**
Fluorine	55	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/14/20 1:46 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-5
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-005	**Collection Date:**	6/29/2020 1:15:00 PM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **CKT**				**ASTM D 3761**	**EPA 9056A**
Fluorine	101	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/14/20 1:46 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-6
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-006	**Collection Date:**	6/29/2020 1:50:00 PM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **CKT**				**ASTM D 3761**	**EPA 9056A**
Fluorine	197	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/14/20 1:46 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-7
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-007	**Collection Date:**	6/29/2020 2:05:00 PM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **MBG**				**ASTM D 3761**	**EPA 9056A**
Fluorine	811	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/18/20 5:16 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-8
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-008	**Collection Date:**	6/29/2020 2:20:00 PM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **MBG**				**ASTM D 3761**	**EPA 9056A**
Fluorine	7250	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/17/20 1:00 PM

I.D. 56-00306 PA DEP

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-9
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-009	**Collection Date:**	6/29/2020 3:00:00 PM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **MBG**				**ASTM D 3761**	**EPA 9056A**
Fluorine	264	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/18/20 5:16 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-10
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-010	**Collection Date:**	6/29/2020 3:10:00 PM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **CKT**				**ASTM D 3761**	**EPA 9056A**
Fluorine	118	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/14/20 1:46 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-11
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-011	**Collection Date:**	6/29/2020 3:30:00 PM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **CKT**				**ASTM D 3761**	**EPA 9056A**
Fluorine	113	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/14/20 1:46 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	680-185778-12
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-012	**Collection Date:**	6/29/2020 3:40:00 PM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **MBG**				**ASTM D 3761**	**EPA 9056A**
Fluorine	285	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/18/20 5:16 PM

Laboratory Results

Geochemical Testing

Date: *20-Aug-20*

CLIENT:	TEST AMERICA - PGH	**Client Sample ID:**	180-108140-B-1
Lab Order:	G2008378		ABP-TP-201 5.8
Project:		**Sampled By:**	Test America
Lab ID:	G2008378-013	**Collection Date:**	7/9/2020 8:30:00 AM
Matrix:	SOLID	**Received Date:**	8/6/2020 12:30:18 PM

Analyses	Result	QL	Q	Units	DF	Date Prepared	Date Analyzed
FLUORINE		Analyst: **MBG**				**ASTM D 3761**	**EPA 9056A**
Fluorine	1640	10		mg/Kg-dry	1	08/14/20 8:00 AM	08/18/20 5:16 PM

I.D. 56-00306 PA DEP

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

GXC 83738

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 180-405920.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sheila.Hoffman@Eurofinset.com	State of Origin: North Carolina	Page: Page 1 of 2
Company: Geochemical Testing		Accreditations Required (See note): State - North Carolina (WW/SW)		Job #: 680-185778-2
Address: 2005 North Center Avenue, ,	Due Date Requested: 8/12/2020			
City: Somerset	TAT Requested (days):			
State, Zip: PA, 15501				
Phone:	PO #:			
Email:	WO #:			
Project Name: Badin Business Park	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (ASMTD3761/EPA 9056 FI)/ ASMTD3761/EPA 9056 FI	Total Number of containers	Special Instructions/Note:
				Preservation Code:						
ABP-TP-201 (5.8) (680-185778-1)	001	6/29/20	08:50 Eastern		Solid			X	1	
ABP-TP-202 (5.0) (680-185778-2)	002	6/29/20	09:45 Eastern		Solid			X	1	
ABP-TP-203 (6.0) (680-185778-3)	003	6/29/20	11:00 Eastern		Solid			X	1	
ABP-TP-204 (4.5) (680-185778-4)	004	6/29/20	11:40 Eastern		Solid			X	1	
ABP-TP-205 (2.0) (680-185778-5)	005	6/29/20	13:15 Eastern		Solid			X	1	
ABP-TP-205 (6.0) (680-185778-6)	006	6/29/20	13:50 Eastern		Solid			X	1	
ABP-TP-206 (2.0) (680-185778-7)	007	6/29/20	14:05 Eastern		Solid			X	1	
ABP-TP-206 (4.0) (680-185778-8)	008	6/29/20	14:20 Eastern		Solid			X	1	
ABP-TP-207 (2.0) (680-185778-9)	009	6/29/20	15:00 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		8/5/2020 700		Don Dal	8-6-20 1730	GTS
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ice Yes 2°

Ver: 01 16 2019

8/20/2020

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

6208378

Chain of Custody Record

eurofins Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 180-405920.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sheila.Hoffman@Eurofinset.com	State of Origin: North Carolina	Page: Page 2 of 2
Company: Geochemical Testing		Accreditations Required (See note): State - North Carolina (WW/SW)		Job #: 680-185778-2
Address: 2005 North Center Avenue, ,	Due Date Requested: 8/12/2020			
City: Somerset	TAT Requested (days):			
State, Zip: PA, 15501				
Phone:	PO #:			
Email:	WO #:			
Project Name: Badin Business Park	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUB (ASMTD3761/EPA 9056 FI/ ASMTD3761/EPA 9056 FI	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ABP-TP-207 (9.5) (680-185778-10) 010	6/29/20	15:10 Eastern		Solid			X	1	
ABP-TP-208 (2.0) (680-185778-11) 011	6/29/20	15:30 Eastern		Solid			X	1	
ABP-TP-208 (9.5) (680-185778-12) 012	6/29/20	15:40 Eastern		Solid			X	1	
AA2000596 (180-108140-8-1) 013	7/9/20	0830	N/A	solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
		8/5/20 1300	DJT		8/6/20 12:36	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

8/20/2020

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-185779-1
Client Project/Site: Badin Business Park
Revision: 1

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

Attn: Michael Worden

Authorized for release by:
7/20/2020 11:38:23 AM

Sheila Hoffman, Project Manager II
(912)250-0279
Sheila.Hoffman@Eurofinset.com

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185779-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Sample Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185779-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
680-185779-1	ABP-TP-202W	Water	06/29/20 09:45	07/01/20 10:00	
680-185779-2	ABP-TP-204W	Water	06/29/20 11:40	07/01/20 10:00	
680-185779-3	ABP-TP-205W	Water	06/29/20 14:35	07/01/20 10:00	

Job ID: 680-185779-1

Laboratory: Eurofins TestAmerica, Savannah

Narrative

CASE NARRATIVE

Client: Civil & Environmental Consultants Inc

Project: Badin Business Park

Report Number: 680-185779-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

REVISION
Sample ID prefix was revised to ABP

RECEIPT
The samples were received on 07/01/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.5 C.

ANIONS BY ION CHROMATOGRAPHY (28 DAY)
Samples ABP-TP-202W (680-185779-1), ABP-TP-204W (680-185779-2) and ABP-TP-205W (680-185779-3) were analyzed for Anions by Ion Chromatography (28 Day) in accordance with EPA Method 300.0. The samples were analyzed on 07/04/2020 and 07/10/2020.

Sample ABP-TP-205W (680-185779-3)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

CYANIDE
Samples ABP-TP-202W (680-185779-1), ABP-TP-204W (680-185779-2) and ABP-TP-205W (680-185779-3) were analyzed for cyanide in accordance with D7511-12. The samples were analyzed on 07/13/2020.

The following samples were found to contain residual chlorine: ABP-TP-202W (680-185779-1), ABP-TP-205W (680-185779-3) and ABP-TP-204W (680-185779-2). The chlorine was treated and removed prior to preparation/analysis.

Cyanide, Total and Cyanide, Total failed the recovery criteria low for the MS of sample ABP-TP-205WMS (680-185779-3) in batch 410-22809.

Refer to the QC report for details.

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

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185779-1

Client Sample ID: ABP-TP-202W

Lab Sample ID: 680-185779-1

Date Collected: 06/29/20 09:45
Matrix: Water
Date Received: 07/01/20 10:00

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	3.3		0.10		mg/L			07/04/20 07:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/13/20 15:18	1

Client Sample ID: ABP-TP-204W

Lab Sample ID: 680-185779-2

Date Collected: 06/29/20 11:40
Matrix: Water
Date Received: 07/01/20 10:00

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	2.0		0.10		mg/L			07/04/20 07:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/13/20 15:15	1

Client Sample ID: ABP-TP-205W

Lab Sample ID: 680-185779-3

Date Collected: 06/29/20 14:35
Matrix: Water
Date Received: 07/01/20 10:00

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	21		0.50		mg/L			07/10/20 18:33	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060	F1	0.0060		mg/L			07/13/20 15:06	1

Method: 300.0-1993 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 680-625066/33
Matrix: Water
Analysis Batch: 625066

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/04/20 01:27	1

Lab Sample ID: LCS 680-625066/34
Matrix: Water
Analysis Batch: 625066

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.00	1.92		mg/L		96	90 - 110

Lab Sample ID: LCSD 680-625066/35
Matrix: Water
Analysis Batch: 625066

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	2.00	1.90		mg/L		95	90 - 110	1	15

Lab Sample ID: MB 680-625870/2
Matrix: Water
Analysis Batch: 625870

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/10/20 14:49	1

Lab Sample ID: LCS 680-625870/3
Matrix: Water
Analysis Batch: 625870

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.00	1.92		mg/L		96	90 - 110

Lab Sample ID: LCSD 680-625870/4
Matrix: Water
Analysis Batch: 625870

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	2.00	1.91		mg/L		96	90 - 110	0	15

Method: D7511-12 - Total Cyanide

Lab Sample ID: MB 410-22809/19
Matrix: Water
Analysis Batch: 22809

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.0060		0.0060		mg/L			07/13/20 15:03	1

Method: D7511-12 - Total Cyanide (Continued)

Lab Sample ID: LCS 410-22809/18
Matrix: Water
Analysis Batch: 22809

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.0403	0.0401		mg/L		99	84 - 116		

Lab Sample ID: 680-185779-3 MS
Matrix: Water
Analysis Batch: 22809

Client Sample ID: ABP-TP-205W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	<0.0060	F1	0.0200	0.0158	F1	mg/L		79	84 - 116		

Lab Sample ID: 680-185779-3 MS
Matrix: Water
Analysis Batch: 22809

Client Sample ID: ABP-TP-205W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	<0.0060	F1	0.0200	0.0162	F1	mg/L		81	84 - 116		

Lab Sample ID: 680-185779-3 DU
Matrix: Water
Analysis Batch: 22809

Client Sample ID: ABP-TP-205W
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cyanide, Total	<0.0060	F1		<0.0060		mg/L				NC	20

QC Association Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-185779-1
Project/Site: Badin Business Park

HPLC/IC

Analysis Batch: 625066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185779-1	ABP-TP-202W	Total/NA	Water	300.0-1993 R2.1	
680-185779-2	ABP-TP-204W	Total/NA	Water	300.0-1993 R2.1	
MB 680-625066/33	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-625066/34	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-625066/35	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	

Analysis Batch: 625870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185779-3	ABP-TP-205W	Total/NA	Water	300.0-1993 R2.1	
MB 680-625870/2	Method Blank	Total/NA	Water	300.0-1993 R2.1	
LCS 680-625870/3	Lab Control Sample	Total/NA	Water	300.0-1993 R2.1	
LCSD 680-625870/4	Lab Control Sample Dup	Total/NA	Water	300.0-1993 R2.1	

General Chemistry

Analysis Batch: 22809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-185779-1	ABP-TP-202W	Total/NA	Water	D7511-12	
680-185779-2	ABP-TP-204W	Total/NA	Water	D7511-12	
680-185779-3	ABP-TP-205W	Total/NA	Water	D7511-12	
MB 410-22809/19	Method Blank	Total/NA	Water	D7511-12	
LCS 410-22809/18	Lab Control Sample	Total/NA	Water	D7511-12	
680-185779-3 MS	ABP-TP-205W	Total/NA	Water	D7511-12	
680-185779-3 MS	ABP-TP-205W	Total/NA	Water	D7511-12	
680-185779-3 DU	ABP-TP-205W	Total/NA	Water	D7511-12	

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185779-1

Client Sample ID: ABP-TP-202W

Lab Sample ID: 680-185779-1

Date Collected: 06/29/20 09:45

Matrix: Water

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	625066	07/04/20 07:09	UI	TAL SAV
	Instrument ID: CICK									
Total/NA	Analysis	D7511-12		1			22809	07/13/20 15:18	L8MI	ELLE
	Instrument ID: 22683_Amp									

Client Sample ID: ABP-TP-204W

Lab Sample ID: 680-185779-2

Date Collected: 06/29/20 11:40

Matrix: Water

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		1	5 mL	5 mL	625066	07/04/20 07:22	UI	TAL SAV
	Instrument ID: CICK									
Total/NA	Analysis	D7511-12		1			22809	07/13/20 15:15	L8MI	ELLE
	Instrument ID: 22683_Amp									

Client Sample ID: ABP-TP-205W

Lab Sample ID: 680-185779-3

Date Collected: 06/29/20 14:35

Matrix: Water

Date Received: 07/01/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0-1993 R2.1		5	5 mL	5 mL	625870	07/10/20 18:33	CS	TAL SAV
	Instrument ID: CICK									
Total/NA	Analysis	D7511-12		1			22809	07/13/20 15:06	L8MI	ELLE
	Instrument ID: 22683_Amp									

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-185779-1
Project/Site: Badin Business Park

Laboratory: Eurofins TestAmerica, Savannah

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

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	269	12-31-20

Laboratory: Eurofins Lancaster Laboratories Env, LLC

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

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	521	12-31-20

Method Summary

Client: Civil & Environmental Consultants Inc
Project/Site: Badin Business Park

Job ID: 680-185779-1

Method	Method Description	Protocol	Laboratory
300.0-1993 R2.1	Anions, Ion Chromatography	MCAWW	TAL SAV
D7511-12	Total Cyanide	ASTM	ELLE

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

Charlotte 229 eurofins Environment Testing America

116292

Client Information	Sampler: Matt Ginther	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 680-116292-44500.1
Client Contact: Michael Worden	Phone: 910-876-0601	E-Mail: sheila.hoffman@testamericainc.com		Page: Page 1 of 1
Company: Civil & Environmental Consultants Inc				Job #
Address: 2704 Cherokee Farm Way Suite 101	Due Date Requested: standard			
City: Knoxville	TAT Requested (days): standard			
State, Zip: TN, 37920				
Phone:	PO #: 270546878TRF			
Email: mworden@cecinc.com	WO #: 300-226.0006			
Project Name: Alcoa - Badin, NC - Cyanide Project	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D7511_12 - Total Cyanide	300_ORGFM_28D - Fluoride	Total Number of containers	Special Instructions/Note:
Preservation Code:							HB			
ABP-TP-202W	6-24-20	0945	G	Water			X	X		
ABP-TP-204W	6-24-20	1140	G	Water			X	X		
ABP-TP-205W	6-24-20	1435	G	Water			X	X		
ABP-TP				Water						
ABP-TP				Water						
ABP-TP				Water						
ABP-TP				Water						
ABP-TP				Water						
ABP-TP				Water						
ABP-TP				Water						
ABP-TP				Water						

680-185779 Chain of Custody

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	6-23-20 12:39	ELLE	C Bonham	6/30/20 1430	
2	Matt Ginther	6-30-20 1430		[signature]	7-1-2020/1000	SDL
3	C Bonham	6/30/20 1540		Received by	Date/Time	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s)°C and Other Remarks: 1.8/2.2. 1.1/1.5

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s):	COC No: 680-616389.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: sheila.hoffman@testamericainc.com	State of Origin: North Carolina	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Env LLC		Accreditations Required (See note): State - North Carolina (WW/SW)		Job #: 680-185779-1
Address: 2425 New Holland Pike,	Due Date Requested: 7/13/2020			
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: Alcoa - Badin, NC - Cyanide Project	Project #: 68024105			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	D7511_12/ Total Cyanide	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
ASB-TP-202W (680-185779-1)	6/29/20	09:45 Eastern		Water			X	1	Price from Lancaster is $36 per sample
ASB-TP-204W (680-185779-2)	6/29/20	11:40 Eastern		Water			X	1	Price from Lancaster is $36 per sample
ASB-TP-205W (680-185779-3)	6/29/20	14:35 Eastern		Water			X	1	Price from Lancaster is $36 per sample

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 7-2-20 1700	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 7/2/20 1033	Company ELLE

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.9

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 680-185779-1

Login Number: 185779
List Number: 1
Creator: Banda, Christy S

List Source: Eurofins TestAmerica, Savannah

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

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 680-185779-1

Login Number: 185779
List Number: 2
Creator: Rivera-Santa, Julissa

List Source: Eurofins Lancaster Laboratories Env
List Creation: 07/07/20 01:15 PM

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

Attachment 4

Laboratory Report – Bath Mill Soils Composite

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Tel: (912)354-7858

Laboratory Job ID: 680-195839-1
Client Project/Site: Alcoa - Badin, NC-Waste Characterization

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

Attn: Michael Worden

Authorized for release by:
3/15/2021 4:10:55 PM

Sheila Hoffman, Project Manager II
(912)250-0279
Sheila.Hoffman@Eurofinset.com

Method Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL SAV
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL SAV
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SAV
300.0	Anions, Ion Chromatography	MCAWW	TAL SAV
9056A	Anions, Ion Chromatography	SW846	TAL SAV
6010D	Metals (ICP)	SW846	TAL SAV
7470A	Mercury (CVAA)	SW846	TAL SAV
1030	Ignitability, Solids	SW846	TAL SAV
2540 D-2011	Total Suspended Solids (Dried at 103-105°C)	SM	TAL SAV
9012B	Cyanide, Total andor Amenable	SW846	TAL SAV
9034	Sulfide, Acid Soluble and Insoluble (Titrimetric)	SW846	TAL SAV
9045D	pH	SW846	TAL SAV
Moisture	Percent Moisture	EPA	TAL SAV
1311	TCLP Extraction	SW846	TAL SAV
3010A	Preparation, Total Metals	SW846	TAL SAV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SAV
5030B	Purge and Trap	SW846	TAL SAV
7470A	Preparation, Mercury	SW846	TAL SAV
9012B	Cyanide, Total and/or Amenable, Distillation	SW846	TAL SAV
9013	Cyanide Extraction (Solids and Oils)	SW846	TAL SAV
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	TAL SAV
DI Leach	Deionized Water Leaching Procedure	ASTM	TAL SAV

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
ASTM = ASTM International
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Sample Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
680-195839-1	204 Bath Mill Area	Solid	03/04/21 09:30	03/05/21 10:00	
680-195839-2	Outfall 012	Water	03/02/21 10:30	03/05/21 10:00	
680-195839-3	Trip Blank	Water	03/02/21 00:00	03/05/21 10:00	

Definitions/Glossary

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

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

Job ID: 680-195839-1

Laboratory: Eurofins TestAmerica, Savannah

Narrative

CASE NARRATIVE

Client: Civil & Environmental Consultants Inc

Project: Alcoa - Badin, NC-Waste Characterization

Report Number: 680-195839-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In the event of interference or analytes present at high concentrations, samples may be diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

RECEIPT
The samples were received on 03/05/2021; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.6 C.

VOLATILE ORGANIC COMPOUNDS (GC/MS)
Samples Outfall 012 (680-195839-2) and Trip Blank (680-195839-3) were analyzed for Volatile Organic Compounds (GC/MS) in accordance with EPA Method 624. The samples were analyzed on 03/08/2021.

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

TCLP VOLATILES BY GC/MS
Sample 204 Bath Mill Area (680-195839-1) was analyzed for TCLP Volatiles by GC/MS in accordance with EPA SW-846 Method 1311. The samples were leached on 03/08/2021 and analyzed on 03/10/2021.

Sample 204 Bath Mill Area (680-195839-1)[20X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS) - TCLP
Sample 204 Bath Mill Area (680-195839-1) was analyzed for semivolatile organic compounds (GC-MS) - TCLP in accordance with 8270E. The samples were leached on 03/09/2021, prepared on 03/11/2021 and analyzed on 03/12/2021.

The following analyte recovered outside control limits for the LCS associated with preparation batch 680-658991 and analytical batch 680-659117: 1,4-Dichlorobenzene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 680-658991 and analytical batch 680-659117 recovered outside control limits for the following analyte: Hexachloroethane. Hexachloroethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Refer to the QC report for details.

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

9056 ANIONS
Sample 204 Bath Mill Area (680-195839-1) was analyzed for 9056 Anions in accordance with EPA SW-846 Method 9056 (DI Leach). The

Job ID: 680-195839-1 (Continued)

Laboratory: Eurofins TestAmerica, Savannah (Continued)

samples were leached on 03/09/2021 and analyzed on 03/10/2021.

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

METALS BY ICP (TCLP)
Sample 204 Bath Mill Area (680-195839-1) was analyzed for Metals by ICP (TCLP) in accordance with EPA SW-846 Method 1311/6010D. The samples were leached on 03/09/2021, and prepared and analyzed on 03/10/2021.

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

METALS (ICP)
Sample Outfall 012 (680-195839-2) was analyzed for Metals (ICP) in accordance with SW-846 Method 6010D. The samples were prepared on 03/08/2021 and analyzed on 03/09/2021.

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

MERCURY - TCLP
Sample 204 Bath Mill Area (680-195839-1) was analyzed for mercury - TCLP in accordance with EPA SW-846 Methods 1311/7470A. The samples were leached on 03/09/2021, and prepared and analyzed on 03/10/2021.

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

IGNITABILITY FOR SOLIDS
Sample 204 Bath Mill Area (680-195839-1) was analyzed for ignitability for solids in accordance with EPA SW-846 Method 1030. The samples were analyzed on 03/08/2021.

The following sample did not ignite: 204 Bath Mill Area (680-195839-1); therefore, an ignitability value could not be obtained. The result has been reported as "No Burn" (NB).

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

TOTAL SUSPENDED SOLIDS
Sample Outfall 012 (680-195839-2) was analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 03/09/2021.

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

ANIONS BY ION CHROMATOGRAPHY (28 DAY)
Sample Outfall 012 (680-195839-2) was analyzed for Anions by Ion Chromatography (28 Day) in accordance with EPA Method 300.0. The samples were analyzed on 03/08/2021.

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

CYANIDE
Sample 204 Bath Mill Area (680-195839-1) was analyzed for Cyanide in accordance with EPA SW-846 Method 9012B. The samples were leached on 03/11/2021, and prepared and analyzed on 03/14/2021.

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

TOTAL SULFIDE
Sample 204 Bath Mill Area (680-195839-1) was analyzed for total sulfide in accordance with EPA SW-846 Method 9034. The samples were prepared and analyzed on 03/09/2021.

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

Job ID: 680-195839-1 (Continued)

Laboratory: Eurofins TestAmerica, Savannah (Continued)

CORROSIVITY (PH)

Sample 204 Bath Mill Area (680-195839-1) was analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045D. The samples were analyzed on 03/10/2021.

This analysis is considered a field test and is to be performed within 15 minutes of collection. This sample(s) was performed in the laboratory outside the 15 minute timeframe.

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

PERCENT SOLIDS/MOISTURE

Sample 204 Bath Mill Area (680-195839-1) was analyzed for Percent Solids/Moisture in accordance with TestAmerica SOP. The samples were analyzed on 03/08/2021.

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

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

Client Sample ID: 204 Bath Mill Area
Lab Sample ID: 680-195839-1
Date Collected: 03/04/21 09:30
Matrix: Solid
Date Received: 03/05/21 10:00

Method: 8260D - Volatile Organic Compounds by GC/MS - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.0072		0.020	0.0072	mg/L			03/10/21 07:25	20
1,2-Dichloroethane	<0.010		0.020	0.010	mg/L			03/10/21 07:25	20
1,4-Dichlorobenzene	<0.0092		0.020	0.0092	mg/L			03/10/21 07:25	20
2-Butanone (MEK)	<0.068	*+	0.20	0.068	mg/L			03/10/21 07:25	20
Benzene	<0.0086		0.020	0.0086	mg/L			03/10/21 07:25	20
Carbon tetrachloride	<0.0066		0.020	0.0066	mg/L			03/10/21 07:25	20
Chlorobenzene	<0.0052		0.020	0.0052	mg/L			03/10/21 07:25	20
Chloroform	<0.010		0.020	0.010	mg/L			03/10/21 07:25	20
Hexachlorobutadiene	<0.050		0.10	0.050	mg/L			03/10/21 07:25	20
Tetrachloroethene	<0.015		0.020	0.015	mg/L			03/10/21 07:25	20
Trichloroethene	<0.0096		0.020	0.0096	mg/L			03/10/21 07:25	20
Vinyl chloride	<0.010		0.020	0.010	mg/L			03/10/21 07:25	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*		*03/10/21 07:25*	*20*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*03/10/21 07:25*	*20*
Toluene-d8 (Surr)	*110*		*70 - 130*		*03/10/21 07:25*	*20*
1,2-Dichloroethane-d4 (Surr)	*93*		*60 - 124*		*03/10/21 07:25*	*20*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.016	F2 *-	0.050	0.016	mg/L		03/11/21 08:13	03/12/21 16:49	1
Pyridine	<0.037	F2 F1	0.25	0.037	mg/L		03/11/21 08:13	03/12/21 16:49	1
Hexachlorobenzene	<0.0080		0.050	0.0080	mg/L		03/11/21 08:13	03/12/21 16:49	1
2,4-Dinitrotoluene	<0.012		0.050	0.012	mg/L		03/11/21 08:13	03/12/21 16:49	1
Hexachloroethane	<0.018	F2 *-	0.050	0.018	mg/L		03/11/21 08:13	03/12/21 16:49	1
Hexachlorobutadiene	<0.020	F2	0.050	0.020	mg/L		03/11/21 08:13	03/12/21 16:49	1
Pentachlorophenol	<0.050		0.25	0.050	mg/L		03/11/21 08:13	03/12/21 16:49	1
2,4,6-Trichlorophenol	<0.011		0.050	0.011	mg/L		03/11/21 08:13	03/12/21 16:49	1
2,4,5-Trichlorophenol	<0.016		0.050	0.016	mg/L		03/11/21 08:13	03/12/21 16:49	1
Nitrobenzene	<0.018		0.050	0.018	mg/L		03/11/21 08:13	03/12/21 16:49	1
2-Methylphenol	<0.0090		0.050	0.0090	mg/L		03/11/21 08:13	03/12/21 16:49	1
3 & 4 Methylphenol	<0.0070		0.050	0.0070	mg/L		03/11/21 08:13	03/12/21 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*106*		*10 - 130*	*03/11/21 08:13*	*03/12/21 16:49*	*1*
2-Fluorobiphenyl (Surr)	*52*		*10 - 130*	*03/11/21 08:13*	*03/12/21 16:49*	*1*
2-Fluorophenol (Surr)	*29*		*10 - 130*	*03/11/21 08:13*	*03/12/21 16:49*	*1*
Terphenyl-d14 (Surr)	*112*		*13 - 130*	*03/11/21 08:13*	*03/12/21 16:49*	*1*
Phenol-d5 (Surr)	*21*		*10 - 130*	*03/11/21 08:13*	*03/12/21 16:49*	*1*
Nitrobenzene-d5 (Surr)	*57*		*11 - 130*	*03/11/21 08:13*	*03/12/21 16:49*	*1*

Method: 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 20:33	1
Barium	<1.0		1.0	1.0	mg/L		03/10/21 11:10	03/10/21 20:33	1
Cadmium	<0.10		0.10	0.10	mg/L		03/10/21 11:10	03/10/21 20:33	1
Chromium	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 20:33	1
Lead	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 20:33	1
Selenium	<0.50		0.50	0.50	mg/L		03/10/21 11:10	03/10/21 20:33	1

Client Sample ID: 204 Bath Mill Area
Lab Sample ID: 680-195839-1
Date Collected: 03/04/21 09:30
Matrix: Solid
Date Received: 03/05/21 10:00

Method: 6010D - Metals (ICP) - TCLP (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.10		0.10	0.10	mg/L		03/10/21 11:10	03/10/21 20:33	1

Method: 7470A - Mercury (CVAA) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.020		0.020	0.020	mg/L		03/10/21 11:49	03/10/21 20:08	1

General Chemistry

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Ignitability	**NB**				mm/sec			03/08/21 11:35	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Temperature	**19.6**	**HF**	0.1	0.1	Celsius			03/10/21 10:59	1
Soil pH in Water	**8.6**	**HF**	0.1	0.1	PH Units			03/10/21 10:59	1

Client Sample ID: 204 Bath Mill Area
Lab Sample ID: 680-195839-1
Date Collected: 03/04/21 09:30
Matrix: Solid
Date Received: 03/05/21 10:00
Percent Solids: 79.8

Method: 9056A - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**53**		2.5	1.0	mg/Kg	☼		03/10/21 15:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.63		0.63	0.63	mg/Kg	☼	03/14/21 15:29	03/14/21 16:35	1
Sulfide	**140**		74	74	mg/Kg	☼	03/09/21 08:01	03/09/21 09:43	1

Client Sample ID: Outfall 012
Lab Sample ID: 680-195839-2
Date Collected: 03/02/21 10:30
Matrix: Water
Date Received: 03/05/21 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<0.48		1.0	0.48	ug/L			03/08/21 16:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*85*		*60 - 140*		*03/08/21 16:51*	*1*
4-Bromofluorobenzene (Surr)	*93*		*60 - 140*		*03/08/21 16:51*	*1*
Dibromofluoromethane (Surr)	*86*		*60 - 140*		*03/08/21 16:51*	*1*
Toluene-d8 (Surr)	*95*		*60 - 140*		*03/08/21 16:51*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**1.1**		0.10	0.040	mg/L			03/08/21 17:22	1

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**40**	**J**	200	24	ug/L		03/08/21 11:55	03/09/21 22:22	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<3.3		3.3	3.3	mg/L			03/09/21 15:40	1

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

Client Sample ID: Trip Blank
Lab Sample ID: 680-195839-3
Date Collected: 03/02/21 00:00
Matrix: Water
Date Received: 03/05/21 10:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<0.48		1.0	0.48	ug/L			03/08/21 14:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*60 - 140*		*03/08/21 14:53*	*1*
4-Bromofluorobenzene (Surr)	*107*		*60 - 140*		*03/08/21 14:53*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*03/08/21 14:53*	*1*
Toluene-d8 (Surr)	*107*		*60 - 140*		*03/08/21 14:53*	*1*

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-658413/9
Matrix: Water
Analysis Batch: 658413

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<0.48		1.0	0.48	ug/L			03/08/21 12:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*60 - 140*		*03/08/21 12:59*	*1*
4-Bromofluorobenzene (Surr)	*91*		*60 - 140*		*03/08/21 12:59*	*1*
Dibromofluoromethane (Surr)	*86*		*60 - 140*		*03/08/21 12:59*	*1*
Toluene-d8 (Surr)	*90*		*60 - 140*		*03/08/21 12:59*	*1*

Lab Sample ID: LCS 680-658413/4
Matrix: Water
Analysis Batch: 658413

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Trichloroethene			50.0	44.1		ug/L		88	65 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*60 - 140*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*
Dibromofluoromethane (Surr)	*94*		*60 - 140*
Toluene-d8 (Surr)	*88*		*60 - 140*

Lab Sample ID: LCSD 680-658413/5
Matrix: Water
Analysis Batch: 658413

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene			50.0	43.7		ug/L		87	65 - 135	1	48

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*60 - 140*
4-Bromofluorobenzene (Surr)	*87*		*60 - 140*
Dibromofluoromethane (Surr)	*96*		*60 - 140*
Toluene-d8 (Surr)	*88*		*60 - 140*

Lab Sample ID: MB 680-658417/10
Matrix: Water
Analysis Batch: 658417

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<0.48		1.0	0.48	ug/L			03/08/21 14:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*60 - 140*		*03/08/21 14:04*	*1*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*		*03/08/21 14:04*	*1*
Dibromofluoromethane (Surr)	*108*		*60 - 140*		*03/08/21 14:04*	*1*
Toluene-d8 (Surr)	*103*		*60 - 140*		*03/08/21 14:04*	*1*

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-658417/5
Matrix: Water
Analysis Batch: 658417

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Trichloroethene			50.0	51.0		ug/L		102	65 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*112*		*60 - 140*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*
Dibromofluoromethane (Surr)	*113*		*60 - 140*
Toluene-d8 (Surr)	*103*		*60 - 140*

Lab Sample ID: LCSD 680-658417/6
Matrix: Water
Analysis Batch: 658417

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichloroethene			50.0	51.1		ug/L		102	65 - 135	0	48

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*
4-Bromofluorobenzene (Surr)	*103*		*60 - 140*
Dibromofluoromethane (Surr)	*105*		*60 - 140*
Toluene-d8 (Surr)	*101*		*60 - 140*

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: LCS 680-658727/7
Matrix: Solid
Analysis Batch: 658727

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1-Dichloroethene			0.0500	0.0513		mg/L		103	70 - 130		
1,2-Dichloroethane			0.0500	0.0548		mg/L		110	70 - 130		
1,4-Dichlorobenzene			0.0500	0.0521		mg/L		104	70 - 130		
2-Butanone (MEK)			0.250	0.302	*+	mg/L		121	69 - 114		
Benzene			0.0500	0.0496		mg/L		99	70 - 130		
Carbon tetrachloride			0.0500	0.0484		mg/L		97	70 - 130		
Chlorobenzene			0.0500	0.0485		mg/L		97	70 - 130		
Chloroform			0.0500	0.0508		mg/L		102	70 - 130		
Hexachlorobutadiene			0.0500	0.0499		mg/L		100	70 - 130		
Tetrachloroethene			0.0500	0.0530		mg/L		106	70 - 130		
Trichloroethene			0.0500	0.0532		mg/L		106	70 - 130		
Vinyl chloride			0.0500	0.0532		mg/L		106	66 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
Dibromofluoromethane (Surr)	*111*		*70 - 130*
Toluene-d8 (Surr)	*100*		*70 - 130*
1,2-Dichloroethane-d4 (Surr)	*114*		*60 - 124*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LB 680-658454/1-A
Matrix: Solid
Analysis Batch: 658727

Client Sample ID: Method Blank
Prep Type: TCLP

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	<0.0072		0.020	0.0072	mg/L			03/10/21 04:58	20
1,2-Dichloroethane	<0.010		0.020	0.010	mg/L			03/10/21 04:58	20
1,4-Dichlorobenzene	<0.0092		0.020	0.0092	mg/L			03/10/21 04:58	20
2-Butanone (MEK)	<0.068		0.20	0.068	mg/L			03/10/21 04:58	20
Benzene	<0.0086		0.020	0.0086	mg/L			03/10/21 04:58	20
Carbon tetrachloride	<0.0066		0.020	0.0066	mg/L			03/10/21 04:58	20
Chlorobenzene	<0.0052		0.020	0.0052	mg/L			03/10/21 04:58	20
Chloroform	<0.010		0.020	0.010	mg/L			03/10/21 04:58	20
Hexachlorobutadiene	<0.050		0.10	0.050	mg/L			03/10/21 04:58	20
Tetrachloroethene	<0.015		0.020	0.015	mg/L			03/10/21 04:58	20
Trichloroethene	<0.0096		0.020	0.0096	mg/L			03/10/21 04:58	20
Vinyl chloride	<0.010		0.020	0.010	mg/L			03/10/21 04:58	20

Surrogate	*LB %Recovery*	*LB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*		*03/10/21 04:58*	*20*
Dibromofluoromethane (Surr)	*105*		*70 - 130*		*03/10/21 04:58*	*20*
Toluene-d8 (Surr)	*105*		*70 - 130*		*03/10/21 04:58*	*20*
1,2-Dichloroethane-d4 (Surr)	*92*		*60 - 124*		*03/10/21 04:58*	*20*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 680-658991/1-A
Matrix: Solid
Analysis Batch: 659117

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658991

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.0032		0.010	0.0032	mg/L		03/11/21 08:13	03/11/21 23:00	1
Pyridine	<0.0074		0.050	0.0074	mg/L		03/11/21 08:13	03/11/21 23:00	1
Hexachlorobenzene	<0.0016		0.010	0.0016	mg/L		03/11/21 08:13	03/11/21 23:00	1
2,4-Dinitrotoluene	<0.0024		0.010	0.0024	mg/L		03/11/21 08:13	03/11/21 23:00	1
Hexachloroethane	<0.0036		0.010	0.0036	mg/L		03/11/21 08:13	03/11/21 23:00	1
Hexachlorobutadiene	<0.0040		0.010	0.0040	mg/L		03/11/21 08:13	03/11/21 23:00	1
Pentachlorophenol	<0.010		0.050	0.010	mg/L		03/11/21 08:13	03/11/21 23:00	1
2,4,6-Trichlorophenol	<0.0022		0.010	0.0022	mg/L		03/11/21 08:13	03/11/21 23:00	1
2,4,5-Trichlorophenol	<0.0032		0.010	0.0032	mg/L		03/11/21 08:13	03/11/21 23:00	1
Nitrobenzene	<0.0036		0.010	0.0036	mg/L		03/11/21 08:13	03/11/21 23:00	1
2-Methylphenol	<0.0018		0.010	0.0018	mg/L		03/11/21 08:13	03/11/21 23:00	1
3 & 4 Methylphenol	<0.0014		0.010	0.0014	mg/L		03/11/21 08:13	03/11/21 23:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*120*		*10 - 130*	*03/11/21 08:13*	*03/11/21 23:00*	*1*
2-Fluorobiphenyl (Surr)	*70*		*10 - 130*	*03/11/21 08:13*	*03/11/21 23:00*	*1*
2-Fluorophenol (Surr)	*36*		*10 - 130*	*03/11/21 08:13*	*03/11/21 23:00*	*1*
Terphenyl-d14 (Surr)	*114*		*13 - 130*	*03/11/21 08:13*	*03/11/21 23:00*	*1*
Phenol-d5 (Surr)	*25*		*10 - 130*	*03/11/21 08:13*	*03/11/21 23:00*	*1*
Nitrobenzene-d5 (Surr)	*72*		*11 - 130*	*03/11/21 08:13*	*03/11/21 23:00*	*1*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 680-658991/2-A
Matrix: Solid
Analysis Batch: 659117

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658991

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	0.200	0.0556	*-	mg/L		28	30 - 130
Pyridine	0.400	0.129		mg/L		32	30 - 130
Hexachlorobenzene	0.200	0.184		mg/L		92	30 - 130
2,4-Dinitrotoluene	0.200	0.198		mg/L		99	30 - 130
Hexachloroethane	0.200	0.0421	*-	mg/L		21	30 - 130
Hexachlorobutadiene	0.200	0.0736		mg/L		37	30 - 130
Pentachlorophenol	0.400	0.311		mg/L		78	30 - 130
2,4,6-Trichlorophenol	0.200	0.161		mg/L		81	30 - 130
2,4,5-Trichlorophenol	0.200	0.163		mg/L		81	30 - 130
Nitrobenzene	0.200	0.140		mg/L		70	30 - 130
2-Methylphenol	0.200	0.0990		mg/L		49	30 - 130
3 & 4 Methylphenol	0.200	0.0959		mg/L		48	30 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*119*		*10 - 130*
2-Fluorobiphenyl (Surr)	*63*		*10 - 130*
2-Fluorophenol (Surr)	*32*		*10 - 130*
Terphenyl-d14 (Surr)	*118*		*13 - 130*
Phenol-d5 (Surr)	*21*		*10 - 130*
Nitrobenzene-d5 (Surr)	*58*		*11 - 130*

Lab Sample ID: LCSD 680-658991/3-A
Matrix: Solid
Analysis Batch: 659117

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 658991

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	0.200	0.0627		mg/L		31	30 - 130	12	30
Pyridine	0.400	0.167		mg/L		42	30 - 130	26	30
Hexachlorobenzene	0.200	0.184		mg/L		92	30 - 130	0	30
2,4-Dinitrotoluene	0.200	0.219		mg/L		109	30 - 130	10	30
Hexachloroethane	0.200	0.0461	*-	mg/L		23	30 - 130	9	30
Hexachlorobutadiene	0.200	0.0722		mg/L		36	30 - 130	2	30
Pentachlorophenol	0.400	0.325		mg/L		81	30 - 130	4	30
2,4,6-Trichlorophenol	0.200	0.199		mg/L		99	30 - 130	21	30
2,4,5-Trichlorophenol	0.200	0.190		mg/L		95	30 - 130	16	30
Nitrobenzene	0.200	0.168		mg/L		84	30 - 130	18	30
2-Methylphenol	0.200	0.128		mg/L		64	30 - 130	25	30
3 & 4 Methylphenol	0.200	0.113		mg/L		57	30 - 130	17	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*129*		*10 - 130*
2-Fluorobiphenyl (Surr)	*72*		*10 - 130*
2-Fluorophenol (Surr)	*40*		*10 - 130*
Terphenyl-d14 (Surr)	*124*		*13 - 130*
Phenol-d5 (Surr)	*26*		*10 - 130*
Nitrobenzene-d5 (Surr)	*69*		*11 - 130*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB2 680-658593/7-I
Matrix: Solid
Analysis Batch: 659117

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 658991

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	<0.016		0.050	0.016	mg/L		03/11/21 08:13	03/12/21 00:07	1
Pyridine	<0.037		0.25	0.037	mg/L		03/11/21 08:13	03/12/21 00:07	1
Hexachlorobenzene	<0.0080		0.050	0.0080	mg/L		03/11/21 08:13	03/12/21 00:07	1
2,4-Dinitrotoluene	<0.012		0.050	0.012	mg/L		03/11/21 08:13	03/12/21 00:07	1
Hexachloroethane	<0.018		0.050	0.018	mg/L		03/11/21 08:13	03/12/21 00:07	1
Hexachlorobutadiene	<0.020		0.050	0.020	mg/L		03/11/21 08:13	03/12/21 00:07	1
Pentachlorophenol	<0.050		0.25	0.050	mg/L		03/11/21 08:13	03/12/21 00:07	1
2,4,6-Trichlorophenol	<0.011		0.050	0.011	mg/L		03/11/21 08:13	03/12/21 00:07	1
2,4,5-Trichlorophenol	<0.016		0.050	0.016	mg/L		03/11/21 08:13	03/12/21 00:07	1
Nitrobenzene	<0.018		0.050	0.018	mg/L		03/11/21 08:13	03/12/21 00:07	1
2-Methylphenol	<0.0090		0.050	0.0090	mg/L		03/11/21 08:13	03/12/21 00:07	1
3 & 4 Methylphenol	<0.0070		0.050	0.0070	mg/L		03/11/21 08:13	03/12/21 00:07	1

Surrogate	*LB2 %Recovery*	*LB2 Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*121*		*10 - 130*	*03/11/21 08:13*	*03/12/21 00:07*	*1*
2-Fluorobiphenyl (Surr)	*66*		*10 - 130*	*03/11/21 08:13*	*03/12/21 00:07*	*1*
2-Fluorophenol (Surr)	*33*		*10 - 130*	*03/11/21 08:13*	*03/12/21 00:07*	*1*
Terphenyl-d14 (Surr)	*121*		*13 - 130*	*03/11/21 08:13*	*03/12/21 00:07*	*1*
Phenol-d5 (Surr)	*24*		*10 - 130*	*03/11/21 08:13*	*03/12/21 00:07*	*1*
Nitrobenzene-d5 (Surr)	*65*		*11 - 130*	*03/11/21 08:13*	*03/12/21 00:07*	*1*

Lab Sample ID: 680-195839-1 MS
Matrix: Solid
Analysis Batch: 659266

Client Sample ID: 204 Bath Mill Area
Prep Type: TCLP
Prep Batch: 658991

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	<0.016	F2 *-	1.00	0.478		mg/L		48	30 - 130
Pyridine	<0.037	F2 F1	2.00	0.739		mg/L		37	30 - 130
Hexachlorobenzene	<0.0080		1.00	0.868		mg/L		87	30 - 130
2,4-Dinitrotoluene	<0.012		1.00	0.898		mg/L		90	30 - 130
Hexachloroethane	<0.018	F2 *-	1.00	0.381		mg/L		38	30 - 130
Hexachlorobutadiene	<0.020	F2	1.00	0.577		mg/L		58	30 - 130
Pentachlorophenol	<0.050		2.00	1.45		mg/L		73	30 - 130
2,4,6-Trichlorophenol	<0.011		1.00	0.855		mg/L		86	30 - 130
2,4,5-Trichlorophenol	<0.016		1.00	0.814		mg/L		81	30 - 130
Nitrobenzene	<0.018		1.00	0.822		mg/L		82	30 - 130
2-Methylphenol	<0.0090		1.00	0.580		mg/L		58	30 - 130
3 & 4 Methylphenol	<0.0070		1.00	0.577		mg/L		58	30 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*109*		*10 - 130*
2-Fluorobiphenyl (Surr)	*75*		*10 - 130*
2-Fluorophenol (Surr)	*40*		*10 - 130*
Terphenyl-d14 (Surr)	*104*		*13 - 130*
Phenol-d5 (Surr)	*25*		*10 - 130*
Nitrobenzene-d5 (Surr)	*66*		*11 - 130*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 680-195839-1 MSD
Matrix: Solid
Analysis Batch: 659266

Client Sample ID: 204 Bath Mill Area
Prep Type: TCLP
Prep Batch: 658991

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	<0.016	F2 *-	1.00	0.690	F2	mg/L		69	30 - 130	36	30
Pyridine	<0.037	F2 F1	2.00	0.539	F2 F1	mg/L		27	30 - 130	31	30
Hexachlorobenzene	<0.0080		1.00	1.10		mg/L		110	30 - 130	24	30
2,4-Dinitrotoluene	<0.012		1.00	1.10		mg/L		110	30 - 130	21	30
Hexachloroethane	<0.018	F2 *-	1.00	0.612	F2	mg/L		61	30 - 130	47	30
Hexachlorobutadiene	<0.020	F2	1.00	0.959	F2	mg/L		96	30 - 130	50	30
Pentachlorophenol	<0.050		2.00	1.78		mg/L		89	30 - 130	20	30
2,4,6-Trichlorophenol	<0.011		1.00	0.950		mg/L		95	30 - 130	10	30
2,4,5-Trichlorophenol	<0.016		1.00	0.945		mg/L		95	30 - 130	15	30
Nitrobenzene	<0.018		1.00	0.988		mg/L		99	30 - 130	18	30
2-Methylphenol	<0.0090		1.00	0.644		mg/L		64	30 - 130	10	30
3 & 4 Methylphenol	<0.0070		1.00	0.638		mg/L		64	30 - 130	10	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*129*		*10 - 130*
2-Fluorobiphenyl (Surr)	*87*		*10 - 130*
2-Fluorophenol (Surr)	*46*		*10 - 130*
Terphenyl-d14 (Surr)	*129*		*13 - 130*
Phenol-d5 (Surr)	*29*		*10 - 130*
Nitrobenzene-d5 (Surr)	*81*		*11 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 680-658433/2
Matrix: Water
Analysis Batch: 658433

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.040		0.10	0.040	mg/L			03/08/21 10:35	1

Lab Sample ID: LCS 680-658433/3
Matrix: Water
Analysis Batch: 658433

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			2.00	2.11		mg/L		105	90 - 110		

Lab Sample ID: LCSD 680-658433/4
Matrix: Water
Analysis Batch: 658433

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride			2.00	2.11		mg/L		105	90 - 110	0	15

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 680-658768/1-A
Matrix: Solid
Analysis Batch: 658839

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.80		2.0	0.80	mg/Kg			03/10/21 15:11	1

Lab Sample ID: LCS 680-658768/2-A
Matrix: Solid
Analysis Batch: 658839

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	20.1	20.3		mg/Kg		101	75 - 125

Lab Sample ID: LCSD 680-658768/3-A
Matrix: Solid
Analysis Batch: 658839

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	20.1	20.4		mg/Kg		101	75 - 125	0	15

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 680-658490/1-A
Matrix: Water
Analysis Batch: 658799

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658490

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	<24		200	24	ug/L		03/08/21 11:55	03/09/21 22:01	1

Lab Sample ID: LCS 680-658490/2-A
Matrix: Water
Analysis Batch: 658799

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658490

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	5000	4640		ug/L		93	80 - 120

Lab Sample ID: 680-195839-2 MS
Matrix: Water
Analysis Batch: 658799

Client Sample ID: Outfall 012
Prep Type: Total/NA
Prep Batch: 658490

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	40	J	5000	4900		ug/L		97	75 - 125

Lab Sample ID: 680-195839-2 MSD
Matrix: Water
Analysis Batch: 658799

Client Sample ID: Outfall 012
Prep Type: Total/NA
Prep Batch: 658490

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	40	J	5000	5060		ug/L		100	75 - 125	3	20

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: MB 680-658870/1-A
Matrix: Solid
Analysis Batch: 659034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658870

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.020		0.020	0.020	mg/L		03/10/21 11:10	03/10/21 19:08	1
Barium	<0.10		0.10	0.10	mg/L		03/10/21 11:10	03/10/21 19:08	1
Cadmium	<0.010		0.010	0.010	mg/L		03/10/21 11:10	03/10/21 19:08	1
Chromium	<0.020		0.020	0.020	mg/L		03/10/21 11:10	03/10/21 19:08	1
Lead	<0.020		0.020	0.020	mg/L		03/10/21 11:10	03/10/21 19:08	1
Selenium	<0.050		0.050	0.050	mg/L		03/10/21 11:10	03/10/21 19:08	1
Silver	<0.010		0.010	0.010	mg/L		03/10/21 11:10	03/10/21 19:08	1

Lab Sample ID: LCS 680-658870/2-A
Matrix: Solid
Analysis Batch: 659034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.00	1.97		mg/L		98	80 - 120
Barium	2.00	1.95		mg/L		97	80 - 120
Cadmium	1.00	0.970		mg/L		97	80 - 120
Chromium	2.00	1.95		mg/L		98	80 - 120
Lead	9.08	8.58		mg/L		94	80 - 120
Selenium	2.00	2.04		mg/L		102	80 - 120
Silver	1.00	0.956		mg/L		96	80 - 120

Lab Sample ID: LB 680-658593/1-C
Matrix: Solid
Analysis Batch: 659034

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 658870

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 19:27	1
Barium	<1.0		1.0	1.0	mg/L		03/10/21 11:10	03/10/21 19:27	1
Cadmium	<0.10		0.10	0.10	mg/L		03/10/21 11:10	03/10/21 19:27	1
Chromium	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 19:27	1
Lead	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 19:27	1
Selenium	<0.50		0.50	0.50	mg/L		03/10/21 11:10	03/10/21 19:27	1
Silver	<0.10		0.10	0.10	mg/L		03/10/21 11:10	03/10/21 19:27	1

Lab Sample ID: LB2 680-658593/7-C
Matrix: Solid
Analysis Batch: 659034

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 658870

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 20:24	1
Barium	<1.0		1.0	1.0	mg/L		03/10/21 11:10	03/10/21 20:24	1
Cadmium	<0.10		0.10	0.10	mg/L		03/10/21 11:10	03/10/21 20:24	1
Chromium	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 20:24	1
Lead	<0.20		0.20	0.20	mg/L		03/10/21 11:10	03/10/21 20:24	1
Selenium	<0.50		0.50	0.50	mg/L		03/10/21 11:10	03/10/21 20:24	1
Silver	<0.10		0.10	0.10	mg/L		03/10/21 11:10	03/10/21 20:24	1

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 680-658875/1-A
Matrix: Solid
Analysis Batch: 658999

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658875

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.00020	mg/L		03/10/21 11:49	03/10/21 19:03	1

Lab Sample ID: LCS 680-658875/2-A
Matrix: Solid
Analysis Batch: 658999

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.250	0.244		mg/L		98	80 - 120

Lab Sample ID: LB 680-658593/1-D
Matrix: Solid
Analysis Batch: 658999

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 658875

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.020		0.020	0.020	mg/L		03/10/21 11:49	03/10/21 19:12	1

Lab Sample ID: LB2 680-658593/7-D
Matrix: Solid
Analysis Batch: 658999

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 658875

Analyte	LB2 Result	LB2 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.020		0.020	0.020	mg/L		03/10/21 11:49	03/10/21 19:40	1

Method: 1030 - Ignitability, Solids

Lab Sample ID: MB 680-658481/1
Matrix: Solid
Analysis Batch: 658481

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

Analyte	MB Result	MB Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Ignitability	NB				mm/sec			03/08/21 11:35	1

Lab Sample ID: LCS 680-658481/2
Matrix: Solid
Analysis Batch: 658481

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ignitability	2.59	2.588		mm/sec		100	75 - 125

Lab Sample ID: LCSD 680-658481/7
Matrix: Solid
Analysis Batch: 658481

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ignitability	2.66	2.656		mm/sec		100	75 - 125	3	10

Method: 2540 D-2011 - Total Suspended Solids (Dried at 103-105°C)

Lab Sample ID: MB 680-658741/1
Matrix: Water
Analysis Batch: 658741

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<2.5		2.5	2.5	mg/L			03/09/21 15:40	1

Lab Sample ID: LCS 680-658741/2
Matrix: Water
Analysis Batch: 658741

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	951	918		mg/L		97	80 - 120

Lab Sample ID: LCSD 680-658741/3
Matrix: Water
Analysis Batch: 658741

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Suspended Solids	951	954		mg/L		100	80 - 120	4	25

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 680-659116/1-B
Matrix: Solid
Analysis Batch: 659505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 659504

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	<0.50		0.50	0.50	mg/Kg		03/14/21 15:29	03/14/21 16:34	1

Lab Sample ID: LCS 680-659116/2-B
Matrix: Solid
Analysis Batch: 659505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 659504

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	1.00	0.991		mg/Kg		99	85 - 115

Lab Sample ID: 680-195839-1 MS
Matrix: Solid
Analysis Batch: 659505

Client Sample ID: 204 Bath Mill Area
Prep Type: Total/NA
Prep Batch: 659504

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	<0.63		1.25	1.26		mg/Kg	☼	100	85 - 115

Lab Sample ID: 680-195839-1 MSD
Matrix: Solid
Analysis Batch: 659505

Client Sample ID: 204 Bath Mill Area
Prep Type: Total/NA
Prep Batch: 659504

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	<0.63		1.25	1.26		mg/Kg	☼	101	85 - 115	0	30

Method: 9034 - Sulfide, Acid Soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 680-658578/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 658602
Prep Batch: 658578

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<60		60	60	mg/Kg		03/09/21 08:01	03/09/21 09:43	1

Lab Sample ID: LCS 680-658578/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 658602
Prep Batch: 658578

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	1250	1170		mg/Kg		93	50 - 150

Lab Sample ID: LCSD 680-658578/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 658602
Prep Batch: 658578

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	1250	1180		mg/Kg		95	50 - 150	1	50

Lab Sample ID: 680-195839-1 MS
Client Sample ID: 204 Bath Mill Area
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 658602
Prep Batch: 658578

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	140		1550	1070		mg/Kg	☼	60	50 - 150

Lab Sample ID: 680-195839-1 MSD
Client Sample ID: 204 Bath Mill Area
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 658602
Prep Batch: 658578

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfide	140		1630	1160		mg/Kg	☼	63	50 - 150	8	50

Lab Sample ID: 680-195839-1 DU
Client Sample ID: 204 Bath Mill Area
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 658602
Prep Batch: 658578

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfide	140		215		mg/Kg	☼	43	50

Method: 9045D - pH

Lab Sample ID: LCS 680-658864/1
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 658864

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.01	7.1		PH Units		101	79 - 126

QC Association Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

GC/MS VOA

Analysis Batch: 658413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-2	Outfall 012	Total/NA	Water	624.1	
MB 680-658413/9	Method Blank	Total/NA	Water	624.1	
LCS 680-658413/4	Lab Control Sample	Total/NA	Water	624.1	
LCSD 680-658413/5	Lab Control Sample Dup	Total/NA	Water	624.1	

Analysis Batch: 658417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-3	Trip Blank	Total/NA	Water	624.1	
MB 680-658417/10	Method Blank	Total/NA	Water	624.1	
LCS 680-658417/5	Lab Control Sample	Total/NA	Water	624.1	
LCSD 680-658417/6	Lab Control Sample Dup	Total/NA	Water	624.1	

Leach Batch: 658454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	1311	
LB 680-658454/1-A	Method Blank	TCLP	Solid	1311	

Analysis Batch: 658727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	8260D	658454
LB 680-658454/1-A	Method Blank	TCLP	Solid	8260D	658454
LCS 680-658727/7	Lab Control Sample	Total/NA	Solid	8260D	

GC/MS Semi VOA

Leach Batch: 658593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	1311	
LB2 680-658593/7-I	Method Blank	TCLP	Solid	1311	
680-195839-1 MS	204 Bath Mill Area	TCLP	Solid	1311	
680-195839-1 MSD	204 Bath Mill Area	TCLP	Solid	1311	

Prep Batch: 658991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	3510C	658593
LB2 680-658593/7-I	Method Blank	TCLP	Solid	3510C	658593
MB 680-658991/1-A	Method Blank	Total/NA	Solid	3510C	
LCS 680-658991/2-A	Lab Control Sample	Total/NA	Solid	3510C	
LCSD 680-658991/3-A	Lab Control Sample Dup	Total/NA	Solid	3510C	
680-195839-1 MS	204 Bath Mill Area	TCLP	Solid	3510C	658593
680-195839-1 MSD	204 Bath Mill Area	TCLP	Solid	3510C	658593

Analysis Batch: 659117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB2 680-658593/7-I	Method Blank	TCLP	Solid	8270E	658991
MB 680-658991/1-A	Method Blank	Total/NA	Solid	8270E	658991
LCS 680-658991/2-A	Lab Control Sample	Total/NA	Solid	8270E	658991
LCSD 680-658991/3-A	Lab Control Sample Dup	Total/NA	Solid	8270E	658991

GC/MS Semi VOA

Analysis Batch: 659266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	8270E	658991
680-195839-1 MS	204 Bath Mill Area	TCLP	Solid	8270E	658991
680-195839-1 MSD	204 Bath Mill Area	TCLP	Solid	8270E	658991

HPLC/IC

Analysis Batch: 658433

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-2	Outfall 012	Total/NA	Water	300.0	
MB 680-658433/2	Method Blank	Total/NA	Water	300.0	
LCS 680-658433/3	Lab Control Sample	Total/NA	Water	300.0	
LCSD 680-658433/4	Lab Control Sample Dup	Total/NA	Water	300.0	

Leach Batch: 658768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Soluble	Solid	DI Leach	
MB 680-658768/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 680-658768/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 680-658768/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Analysis Batch: 658839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Soluble	Solid	9056A	658768
MB 680-658768/1-A	Method Blank	Soluble	Solid	9056A	658768
LCS 680-658768/2-A	Lab Control Sample	Soluble	Solid	9056A	658768
LCSD 680-658768/3-A	Lab Control Sample Dup	Soluble	Solid	9056A	658768

Metals

Prep Batch: 658490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-2	Outfall 012	Total/NA	Water	3010A	
MB 680-658490/1-A	Method Blank	Total/NA	Water	3010A	
LCS 680-658490/2-A	Lab Control Sample	Total/NA	Water	3010A	
680-195839-2 MS	Outfall 012	Total/NA	Water	3010A	
680-195839-2 MSD	Outfall 012	Total/NA	Water	3010A	

Leach Batch: 658593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	1311	
LB 680-658593/1-C	Method Blank	TCLP	Solid	1311	
LB 680-658593/1-D	Method Blank	TCLP	Solid	1311	
LB2 680-658593/7-C	Method Blank	TCLP	Solid	1311	
LB2 680-658593/7-D	Method Blank	TCLP	Solid	1311	

Analysis Batch: 658799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-2	Outfall 012	Total/NA	Water	6010D	658490
MB 680-658490/1-A	Method Blank	Total/NA	Water	6010D	658490
LCS 680-658490/2-A	Lab Control Sample	Total/NA	Water	6010D	658490
680-195839-2 MS	Outfall 012	Total/NA	Water	6010D	658490
680-195839-2 MSD	Outfall 012	Total/NA	Water	6010D	658490

Metals

Prep Batch: 658870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	3010A	658593
LB 680-658593/1-C	Method Blank	TCLP	Solid	3010A	658593
LB2 680-658593/7-C	Method Blank	TCLP	Solid	3010A	658593
MB 680-658870/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 680-658870/2-A	Lab Control Sample	Total/NA	Solid	3010A	

Prep Batch: 658875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	7470A	658593
LB 680-658593/1-D	Method Blank	TCLP	Solid	7470A	658593
LB2 680-658593/7-D	Method Blank	TCLP	Solid	7470A	658593
MB 680-658875/1-A	Method Blank	Total/NA	Solid	7470A	
LCS 680-658875/2-A	Lab Control Sample	Total/NA	Solid	7470A	

Analysis Batch: 658999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	7470A	658875
LB 680-658593/1-D	Method Blank	TCLP	Solid	7470A	658875
LB2 680-658593/7-D	Method Blank	TCLP	Solid	7470A	658875
MB 680-658875/1-A	Method Blank	Total/NA	Solid	7470A	658875
LCS 680-658875/2-A	Lab Control Sample	Total/NA	Solid	7470A	658875

Analysis Batch: 659034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	TCLP	Solid	6010D	658870
LB 680-658593/1-C	Method Blank	TCLP	Solid	6010D	658870
LB2 680-658593/7-C	Method Blank	TCLP	Solid	6010D	658870
MB 680-658870/1-A	Method Blank	Total/NA	Solid	6010D	658870
LCS 680-658870/2-A	Lab Control Sample	Total/NA	Solid	6010D	658870

General Chemistry

Analysis Batch: 658394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Total/NA	Solid	Moisture	

Analysis Batch: 658481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Total/NA	Solid	1030	
MB 680-658481/1	Method Blank	Total/NA	Solid	1030	
LCS 680-658481/2	Lab Control Sample	Total/NA	Solid	1030	
LCSD 680-658481/7	Lab Control Sample Dup	Total/NA	Solid	1030	

Prep Batch: 658578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Total/NA	Solid	9030B	
MB 680-658578/1-A	Method Blank	Total/NA	Solid	9030B	
LCS 680-658578/2-A	Lab Control Sample	Total/NA	Solid	9030B	
LCSD 680-658578/3-A	Lab Control Sample Dup	Total/NA	Solid	9030B	
680-195839-1 MS	204 Bath Mill Area	Total/NA	Solid	9030B	
680-195839-1 MSD	204 Bath Mill Area	Total/NA	Solid	9030B	

General Chemistry (Continued)

Prep Batch: 658578 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1 DU	204 Bath Mill Area	Total/NA	Solid	9030B	

Analysis Batch: 658602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Total/NA	Solid	9034	658578
MB 680-658578/1-A	Method Blank	Total/NA	Solid	9034	658578
LCS 680-658578/2-A	Lab Control Sample	Total/NA	Solid	9034	658578
LCSD 680-658578/3-A	Lab Control Sample Dup	Total/NA	Solid	9034	658578
680-195839-1 MS	204 Bath Mill Area	Total/NA	Solid	9034	658578
680-195839-1 MSD	204 Bath Mill Area	Total/NA	Solid	9034	658578
680-195839-1 DU	204 Bath Mill Area	Total/NA	Solid	9034	658578

Analysis Batch: 658741

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-2	Outfall 012	Total/NA	Water	2540 D-2011	
MB 680-658741/1	Method Blank	Total/NA	Water	2540 D-2011	
LCS 680-658741/2	Lab Control Sample	Total/NA	Water	2540 D-2011	
LCSD 680-658741/3	Lab Control Sample Dup	Total/NA	Water	2540 D-2011	

Analysis Batch: 658864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Total/NA	Solid	9045D	
LCS 680-658864/1	Lab Control Sample	Total/NA	Solid	9045D	

Leach Batch: 659116

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Total/NA	Solid	9013	
MB 680-659116/1-B	Method Blank	Total/NA	Solid	9013	
LCS 680-659116/2-B	Lab Control Sample	Total/NA	Solid	9013	
680-195839-1 MS	204 Bath Mill Area	Total/NA	Solid	9013	
680-195839-1 MSD	204 Bath Mill Area	Total/NA	Solid	9013	

Prep Batch: 659504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Total/NA	Solid	9012B	659116
MB 680-659116/1-B	Method Blank	Total/NA	Solid	9012B	659116
LCS 680-659116/2-B	Lab Control Sample	Total/NA	Solid	9012B	659116
680-195839-1 MS	204 Bath Mill Area	Total/NA	Solid	9012B	659116
680-195839-1 MSD	204 Bath Mill Area	Total/NA	Solid	9012B	659116

Analysis Batch: 659505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
680-195839-1	204 Bath Mill Area	Total/NA	Solid	9012B	659504
MB 680-659116/1-B	Method Blank	Total/NA	Solid	9012B	659504
LCS 680-659116/2-B	Lab Control Sample	Total/NA	Solid	9012B	659504
680-195839-1 MS	204 Bath Mill Area	Total/NA	Solid	9012B	659504
680-195839-1 MSD	204 Bath Mill Area	Total/NA	Solid	9012B	659504

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

Client Sample ID: 204 Bath Mill Area
Lab Sample ID: 680-195839-1
Date Collected: 03/04/21 09:30
Matrix: Solid
Date Received: 03/05/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			25.00 g	500 mL	658454	03/08/21 12:29	JEB	TAL SAV
TCLP	Analysis	8260D		20	5 mL	5 mL	658727	03/10/21 07:25	EMA	TAL SAV
	Instrument ID: CMSP2									
TCLP	Leach	1311			100.02 g	2000 mL	658593	03/09/21 12:34	JEB	TAL SAV
TCLP	Prep	3510C			100 mL	1 mL	658991	03/11/21 08:13	TRA	TAL SAV
TCLP	Analysis	8270E		1			659266	03/12/21 16:49	DBM	TAL SAV
	Instrument ID: CMSN									
TCLP	Leach	1311			100.02 g	2000 mL	658593	03/09/21 12:34	JEB	TAL SAV
TCLP	Prep	3010A			5 mL	50 mL	658870	03/10/21 11:10	BCB	TAL SAV
TCLP	Analysis	6010D		1			659034	03/10/21 20:33	BCB	TAL SAV
	Instrument ID: ICPE									
TCLP	Leach	1311			100.02 g	2000 mL	658593	03/09/21 12:34	JEB	TAL SAV
TCLP	Prep	7470A			0.50 mL	50 mL	658875	03/10/21 11:49	JKL	TAL SAV
TCLP	Analysis	7470A		1			658999	03/10/21 20:08	JKL	TAL SAV
	Instrument ID: LEEMAN2									
Total/NA	Analysis	1030		1			658481	03/08/21 11:35	SM	TAL SAV
	Instrument ID: SPC8									
Total/NA	Analysis	9045D		1	20.01 g	20 mL	658864	03/10/21 10:59	SM	TAL SAV
	Instrument ID: GEpHM4									
Total/NA	Analysis	Moisture		1			658394	03/08/21 06:52	JEB	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: 204 Bath Mill Area
Lab Sample ID: 680-195839-1
Date Collected: 03/04/21 09:30
Matrix: Solid
Date Received: 03/05/21 10:00
Percent Solids: 79.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			9.93 g	100 mL	658768	03/09/21 16:56	KMB	TAL SAV
Soluble	Analysis	9056A		1	5 mL	5 mL	658839	03/10/21 15:49	UI	TAL SAV
	Instrument ID: CICH									
Total/NA	Leach	9013			10.0 g	200 mL	659116	03/11/21 14:01	CMR	TAL SAV
Total/NA	Prep	9012B			6 mL	6 mL	659504	03/14/21 15:29	CMR	TAL SAV
Total/NA	Analysis	9012B		1			659505	03/14/21 16:35	CMR	TAL SAV
	Instrument ID: KONELAB4									
Total/NA	Prep	9030B			1.02 g	6 mL	658578	03/09/21 08:01	NVF	TAL SAV
Total/NA	Analysis	9034		1	6 mL	6 mL	658602	03/09/21 09:43	NVF	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: Outfall 012
Lab Sample ID: 680-195839-2
Date Collected: 03/02/21 10:30
Matrix: Water
Date Received: 03/05/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	658413	03/08/21 16:51	Y1S	TAL SAV
	Instrument ID: CMSB									

Lab Chronicle

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

Client Sample ID: Outfall 012
Lab Sample ID: 680-195839-2
Date Collected: 03/02/21 10:30
Matrix: Water
Date Received: 03/05/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	5 mL	658433	03/08/21 17:22	T1C	TAL SAV
Total/NA	Prep	3010A			50 mL	50 mL	658490	03/08/21 11:55	BJB	TAL SAV
Total/NA	Analysis	6010D		1			658799	03/09/21 22:22	BWR	TAL SAV
	Instrument ID: ICPE									
Total/NA	Analysis	2540 D-2011		1	750 mL	1000 mL	658741	03/09/21 15:40	MS	TAL SAV
	Instrument ID: NOEQUIP									

Client Sample ID: Trip Blank
Lab Sample ID: 680-195839-3
Date Collected: 03/02/21 00:00
Matrix: Water
Date Received: 03/05/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	5 mL	5 mL	658417	03/08/21 14:53	Y1S	TAL SAV
	Instrument ID: CMSP2									

Laboratory References:
TAL SAV = Eurofins TestAmerica, Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Eurofins TestAmerica, Savannah
5102 LaRoche Avenue
Savannah, GA 31404
Phone: 912-354-7858 Fax: 912-352-0165

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Randal Kline	Lab PM: Hoffman, Sheila B	Carrier Tracking No(s): 819763496595	COC No: 680-123699-46309 1
Client Contact: Michael Worden	Phone: 704 502 6139	E-Mail: Sheila.Hoffman@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: Civil & Environmental Consultants Inc	PWSID:			Job #:
Address: 2704 Cherokee Farm Way Suite 101	Due Date Requested: 3/12/21			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37920	Compliance Project: Δ Yes Δ No			
Phone:	PO #: Purchase Order not required			
Email: mworden@cecinc.com	WO #:			
Project Name: Alcoa - Badin, NC-Waste Characterization	Project #: 68023634			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D - TCLP VOC	7470A, 8270E	6010D - TCLP-RCRA8	1030, 9012B, 9034, 9045D	9056A_ORGFM_28D - (MOD) Fluoride	2540 D Solids, Total TSS	6010D (Map) Aluminum	300.2nd Fluoride	Cl, Trichloroethene, (TCE)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N	N	N						
204 Bath Mill area	3/4/21	0930	G	Solid			X	X	X	X							
Outfall 012	3/2/21	1030	C/G	water								X	X	X	X		

680-195839 Chain of Custody

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Randal Kline	Date: 3/4/21	Time: 1045	Method of Shipment: FedEx

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by: Helene	Date/Time: 3/5/2021	Company: TOA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 179 4260	Cooler Temperature(s) °C and Other Remarks: 0.4 (0.4)

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: Civil & Environmental Consultants Inc

Job Number: 680-195839-1

Login Number: 195839
List Number: 1
Creator: Chamberlain, Kim A

List Source: Eurofins TestAmerica, Savannah

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

Accreditation/Certification Summary

Client: Civil & Environmental Consultants Inc
Job ID: 680-195839-1
Project/Site: Alcoa - Badin, NC-Waste Characterization

Laboratory: Eurofins TestAmerica, Savannah

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

Authority	Program	Identification Number	Expiration Date
North Carolina (WW/SW)	State	269	12-31-21

Attachment 5

Waste Profile

S

REPUBLIC SERVICES

Disposal Facility: 3041 UWHARRIE Environmental Landfill NC

Waste Profile #:

Sales Rep #:

I. Generator Information

Generator Name: Alcoa Badin Business Park LLC

Generator Site Address: 293 Hwy 740

City: Badin | County: Stanly | State: North Carolina | Zip: 28009

State ID/Reg No: N/A | State Approval/Waste Code: N/A | NAICS #:

Generator Mailing Address ☑ (if different) PO Box 576

City: | County: Stanly | State: North Carolina | Zip: 28009

Generator Contact Name: Randall Kiser | Email: randall.kiser@alcoa.com

Phone Number: 704-422-5685 | Ext: | Fax Number:

II. Billing Information

Bill To: Alcoa Badin Business Park LLC | Contact Name: Randall Kiser

Billing Address: PO Box 576 | Email: randall.kiser@alcoa.com

City: Badin | State: North Carolina | Zip: 28009 | Phone: 704-422-5776

III. Waste Stream Information

Name of Waste: Soil and Crushed Concrete

Process Generating Waste: Remediation and removal of soil underlying a concrete pad.

Type of Waste: Pollution Control Waste | Physical State: Solid | Method of Shipment: Bulk

Estimated Volume: 1900 | Volume Type: Tons

Frequency: One-time Event (single project) | Disposal Consideration: Landfill

IV. Representative Sample Certification

☐ No Sample Taken

☑ Sample Taken Type of Sample: Grab Sample

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.20(c) guidelines or equivalent? ☑ Yes ☐ No

Sample Date: 3/4/2021

Sample ID Numbers or SDS: 204 Bath Mill Area

Remember to attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

V. Physical Characteristics of Waste

Characteristic Components (must equal 100%:)	% By Weight (out of 100% - ranges acceptable):
1. Soil	75-100
2. Crushed Concrete	25-30
3.	
4.	
5.	

Color:	Odor (describe):	Does Waste Contain Free Liquids?	% Solids:	pH:	Flash Point:
Tan/Brown	None	☐ Yes ☑ No	100	N/A	N/A °F

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) including Chain of Custody and required parameters provided for this profile.

RCRA Regulatory Questions

1. Does this waste or generating process contain regulated concentrations of the following Pesticides and/ or Herbicides: Chlordane, Endrin, Heptachlor (and its epoxides), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silvex as defined in 40 CFR 261.33? ☐ Yes ☑ No
2. Does this waste contain reactive sulfides (greater than 500 ppm) or reactive cyanide (greater than 250 ppm) [reference 40 CFR 261.23(a)(5)]? ☐ Yes ☑ No
3. Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 761? ☐ Yes ☑ No
4. Does this waste contain concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents? ☐ Yes ☑ No
5. Has this waste been delisted under 40 CFR 260.20 and 260.22? If yes, attach the final decision to delist the waste as published in the Federal Register. ☐ Yes ☑ No
6. Does this waste exhibit a Hazardous Characteristic as defined by Federal and/or State regulations? If Yes, identify the applicable waste code and specify if the waste is hazardous as defined by Federal, State or both? ☐ Yes ☑ No

   [ ]
7. Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzodioxin (2,3,7,8-TCCD), or any other dioxin as defined in 40 CFR 261.31? ☐ Yes ☑ No
8. Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations? ☐ Yes ☑ No
9. Is this a regulated Radioactive Waste as defined by Federal and/or State regulations? ☐ Yes ☑ No
10. Is this a solid waste that is not a hazardous waste in accordance with 40 CFR 261.4(b)? If yes, please provide the corresponding regulatory citation. ☐ Yes ☑ No

    [ ]

Republic Services Waste Handling Questions

1. Does this waste generate heat or react when contacted with water/moisture? ☐ Yes ☑ No
2. Does the waste contain sulfur or sulfur by-products? ☑ Yes ☐ No
3. Is this waste generated at a State or Federal Superfund cleanup site subject to regulation under CERCLA? ☐ Yes ☑ No

4a. Is this waste from a TSD facility, TSD-like facility or consolidator (i.e. multiple wastes/multiple generators)? ☐ Yes ☑ No

4b. If yes to the above question, please provide clarification.

[ ]

VI. Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true, complete and accurate description of the waste material being offered for disposal and all known or suspected hazards have been disclosed. All Analytical Results/Material Safety Data Sheets submitted are truthful and complete and are representative of the waste.

I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. I shall immediately give written notice of any change or condition pertaining to the waste not provided herein. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue.

I understand that attaching an electronic signature, I am signing this document, consent to complete this transaction and receive all related communication electronically, and agree this document will be binding as though I had physically signed it. A printout of this document may be accepted with the same authority as the original.

If electronic signature is preferred, please submit completed (unsigned) form to your Special Waste Coordinator or Special Waste Sales Executive to initiate signature process.

I further certify that the company has not altered the form or content of this profile sheet as provided by Republic Services.

Randall Kiser	Alcoa BBP LLC Asset Manager	Alcoa Badin Business Park LLC
Authorized Representative Name (Printed)	Title (Printed)	Company Name
Randall Kiser	4/5/2021	
Representative Signature	Date	