Annual CCR Management and Dust Control Report

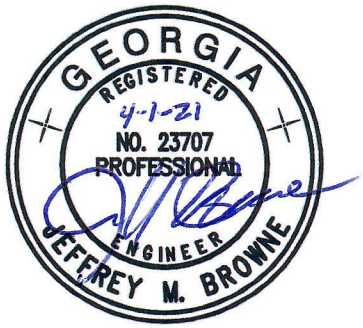
Taylor County Landfill
Waste Industries

A GFL Company

208 Southern States Road
Mauk, GA 31058

Taylor County, Georgia

April 2021



BROWNE
AND COMPANY, LLC
3312 Northside Drive • Bldg D, Suite 220
Macon, Georgia 31210
Phone: 478-743-4843 Browne1234@aol.com

Browne and Company, LLC PEF004508 Exp. 06/30/2022

ANNUAL CCR MANAGEMENT AND DUST CONTROL REPORT

In accordance with the guidance document provided by the Georgia Department of Natural Resources, Environmental Protection Division, the following information is provided for compliance with the Solid Waste Regulations 391-3-4.

1. CCR and Non-CCR Waste received during the previous year
   a) CCR Monofill
      i. List of type(s) and source(s) of CCR
      ii. Annual amount of CCR
      iii. Daily maximum amount of CCR

Not applicable. Taylor County Landfill (TCLF) did not take any CCR waste in a CCR monofill, or monofill in the MSW landfill facility.

   b) Comingled CCR and Non-CCR Waste
      i. List of type(s) and source(s) of CCR, and other types of non-CCR waste, such as, municipal, industrial, or commercial solid waste

All homogenous CCR-type waste received at the facility was generated by Jacksonville Electrical Authority (JEA), Northside Generating Station. The waste product is a mix of coal combustion residuals and petroluem coke residue from power generation. The fuel ratio of coal to petcoke, as specified by EPA's requirements, does not meet the standard to define the waste product as CCR. However, for purposes of permitting and disposal at TCLF, the facility treats it as CCR. In addition, TCLF took construction and demolition debris from Georgia Power's Plant Mitchell being decommissioned. The total tonnage of this material received in 2020 was 31,970 tons, with trace CCR material in it. It is estimated approximately 2% of this waste was CCR, or 639 tons. Other non-CCR waste disposed at the facility includes all wastes acceptable at the facility based on the solid waste handling permit, including municipal solid waste, commercial waste, industrial waste, and nonhazardous sludges.

      ii. Annual amount of CCR

100,183 tons

      iii. Daily maximum amount of CCR

1200 tons (The average daily amount for disposal in 2020 was 384 tons, with a maximum of 1200 tons.)

iv. Annual amount of non-CCR waste

596,866 tons

v. Daily maximum amount of non CCR waste

3781 tons (The average daily amount for disposal in 2019 was 2132 tons, with a maximum of 3781 tons.)

vi. Maximum ratio of CCR to non-CCR waste

1:6.0 (This ratio of CCR to non-CCR disposed of during 2020 does not exceed the maximum [33%] considered in the design calculations.)

2. Waste Placement, Cover, and Recovery
   a) Management and maximum area of the working face

CCR material not used in solidification is restricted to the working face of each cell in such a manner that it is easily incorporated into the municipal waste landfill with available equipment. Almost all of the CCR received at the facility was incorporated in the solidification process and not directly comingled with other waste at the working face. Any CCR waste included in the disposal stream did not restrict proper operations at the working face.

The working face is maintained at a size that is compatible with the facility's available equipment for spreading and compacting waste, and for suppressing dust. The typical working face area is 200 feet by 200 feet. However, occasionally the working face size is adjusted to support unusual weather activity, temporary volume adjustments to the waste stream, to safely stage different waste loads to accommodate truck traffic and allow blending of waste loads during daily operations. The working face size may increase to a maximum of 350 feet by 350 feet. This maximum size does not persist for more than a day.

b) Waste placement and compaction for CCR lifts and comingled waste

Solid waste is spread in uniform layers approximately 2 feet thick, and compacted to its smallest practical volume. Trucks that bring waste to the active area dump loads directly or using the tipper at the working face. Dozers and compactors spread, compact and blend

the waste. Most of the CCR material is used for solidification agent and then used on interior slopes as alternate daily cover. Any CCR material disposed directly at the active working face is blended in with MSW waste during the day's regular disposal activities, and compacted as described above.

c) Leachate outbreaks frequency, corrective actions taken, and if there is a need to install drainage layers such as chimney drains

Disposing and solidifying CCR did not create additional frequency of outbreaks. If leachate outbreaks are identified during daily inspections, they are repaired in accordance with the procedures outlined in the D&O plan, item 16, Sheet 46. The frequency of outbreaks is defined as occasional, depending on factors such as recent rainfall and areas of operation. Since large isolated blocks of CCR are not disposed during typical daily operations, CCR disposal does not restrict proper operations at the working face. The disposal practices are intended to not create layers of compacted coal ash, and therefore does not increase the occurrence of leachate outbreaks from a reduction in infiltration rates. In addition, when returning to a previously disposed area, the operator excavates windows into the existing layer as the new daily operations begin, using an excavator or a tipped dozer blade. This ensures any lenses are broken open to ensure infiltration through the waste to the leachate collection system at the cell floor.

d) Daily cover of comingled CCR and non-CCR waste

Alternate daily cover (ADC) generated from the solidification operations is only used on interior slopes. (If it is placed in the working face when it's located at an outside slope, it is treated the same as the other MSW disposed on exterior slopes, and covered with regular soil daily cover.) Solidified CCR used for ADC is typically blended with soil as the daily cover is placed by dumping the material on interior slopes along with cover soil, and spreading with dozers.

e) Statement verifying that daily inspection reports are kept on-site in accordance with the current D&O Plans.

The following daily logs are maintained on site:
- Operations Manager Daily Log
- Rainfall Log
- Water Truck Log & Recirculation Log

The Operations Manager Daily Log includes the checklist items to ensure compliance with regular solid waste operations, and any dust control logs maintained at the site. The Operations manager keeps these items in his office in the scalehouse or in his vehicle during normal operating hours. A sample dust suppression log is attached in Appendix A. At his discretion, the Manager may add notes in the comments section of the daily log, or if action items are identified, such as leachate outbreaks or dust control-related issues, the Manager may designate an employee to take corrective action immediately, prior to documenting the comment.

The Rainfall Log is kept on the active shelf in the scalehouse as part of the operating record.

The Water Truck Log & Recirculation Log are kept in the water truck during normal operating hours. Use of water to control dust is recorded in the log.

f) Management of solidification operation using CCR as a solidification agent, and sample records of paint filter tests, if applicable

Records for modifications and approvals for solidification are maintained in the Operating Record, and applicable paint filter tests are kept in a log in the Operations Manager's office in the scalehouse.

g) Recovery of previously disposed CCR for beneficial reuse, if applicable.

Not applicable.

3. Fugitive Dust Control
   a) Actions taken to control CCR fugitive dust from CCR disposal unit, roads, conditioning areas, and solidification operation; and effectiveness of those actions

The Operator utilizes the following measures to minimize the CCR from becoming airborne:

- ensures all trucks transporting CCR are covered
- reduces or halts operations during high wind events
- operates a water spray system, to include passes with a water wagon, supplemented with impact sprinkler heads, supplied by the existing irrigation well, when additional control is needed
- applies more frequent cover as needed

Keeping the trucks covered is the most effective way to prevent the escape of dust during transport. Occasionally, trucks were not covered properly, and the Operator indicated to the driver to correct this.

Similarly, there were several days during the past year when the Operator ceased CCR disposal during high wind periods.

The water wagon proved most effective controlling dust site-wide. Impact sprinkler heads around the road system were also occasionally used, but were not a primary control. In addition a pair of water misters are available at the solidification / disposal area. This system is effective in suppressing dust through misting. However, it may be supplemented from time-to-time with hydroseeder equipment at the pit area to add additional dust suppression with spraying of water. Once the CCR material is solidified for use as ADC, its dusty characteristics are significantly reduced. Therefore, adding more frequent cover was not needed.

b) Records of Citizen Complaints specifically related to CCR Management, if applicable

No citizen complaints related to dust control have been received. Forms for recording these complaints are on site. Employees who may answer the phone are trained to record them on the appropriate form. EPD's District Office requested a demonstration that CCR dust was not leaving the disposal area and accumulating in the sediment pond. A study and subsequent report was prepared to demonstrate CCR was not present in the sediment pond. This letter report is attached in Appendix C. ("Site and Pond Inspection Report" by Golder, February 5, 2021.)

c) Recommendations to improve dust control measures in the future, if applicable to CCR Materials

Adding water has proved most effective. The Operator is pursuing ways to expand the hydroseeder-type spraying as well as adding an additional water wagon. In addition, the Operator is considering an alternate mixing method to limit dust generation.

4. Leachate Collection and Removal System (LCRS)
   a) Any known issues with the LCRS that are directly attributed to CCR

No known issues with the LCRS have been attributed to disposal of CCR.

5. Storm Water - Management System
    a) Narrative describing measures used to ensure that surface water contacting CCR and non-CCR waste has not been discharged into the stormwater management system

Since almost all the CCR disposed at the facility is kept within interior slopes, surface water contacting the material infiltrates the site and is directed to the leachate collection system. The stormwater management system is entirely directed to permitted sediment ponds. The pond outfalls are monitored semi-annually as part of the approved groundwater and surface water monitoring plan. Monitoring for appendix III (and IV) constituents is part of the plan for surface water points.

6. Waste Compatibility
    a) Any incompatibility issues and corrective measures taken

No known issues with compatibility have been attributed to disposal of CCR. During a previous review meeting, EPD requested that the solidification pit be separated to allow CCR mixed with leachate in a different area than the other solidification processes. A soil berm is maintained in the middle of the solidification pit for this purpose.

    b) For a solidification process, if CCR is used as a solidification agent
        i. List of type(s) and source(s) of CCR and types of liquid waste streams received for solidification prior to disposal

All CCR-type waste used for solidification at the facility was generated by Jacksonville Electrical Authority (JEA), Northside Generating Station. The waste product is a mix of coal combustion residuals and petroleum coke residue from power generation.

The liquid wastes include waste process paint sludge, off-spec latex paint, off-spec beverages, liquid soaps and similar materials.

        ii. Sample records of compatibility analyses

Liquid wastes are categorized by the site as special waste. New special waste is reviewed by a third party consultant to ensure it meets acceptability requirements, and is compatible with other wastes. Special waste is manifested for disposal. Manifests and special waste reviews are kept on file in the facility Operating Record. (A sample is included in Appendix A.)

Employees involved with the disposal and solidification of liquid waste and CCR are trained to note any unexpected color changes, unusual odors or evidence of dangerous reactive activity. If this occurs, disposal is stopped immediately, and the Operations Manager is notified.

7. Groundwater Monitoring
   a) The Environmental Monitoring Unit will assess groundwater monitoring data and will determine if the groundwater monitoring plan requires revision.

The approved groundwater monitoring plan is in place and the facility is currently in compliance.

8. Emergencies
   a) Any events or circumstances that represented an operational or environmental emergency and the corrective actions taken specific to the management of CCR.

No such events or circumstances were noted during this period. The facility holds weekly safety briefings, which include discussions of the current disposal and solidification locations and any new activities. New hires receive appropriate safety training in accordance with their duties.

9. Documentation of Notification to Local Governments

   The owner or operator shall notify the local governing authorities of the county, and any city within the county, in which the landfill is located upon submittal of an amended Plan to EPD. Copies of the correspondence to local governing authorities must be provided to EPD with the amended Plan submittal.

An amended plan is not being submitted at this time. (However, an updated plan with minor revisions is currently under review by EPD, as part of the 5-year permit renewal and updated D&O Plans.) The local Governments were previously notified upon the submittal of the previous plan. Copies of the notification letters are attached in Appendix B.

APPENDIX

Appendix A
Sample Special Waste Review*
Compatibility Review
Sample Log

* Note: The names of Taylor County Landfill customers are not public information. Identifying information about the source has been redacted from the attached pages.

WASTE INDUSTRIES LANDFILL

GENERATOR WASTE PROFILE WORKSHEET

Area To be completed by Waste Industries (WI) – Representative

SW Designee Number: 96-121720-1 Profile Number: 0916-P7-2011 Approval Date: 12/17/20

Landfill (Check):			
☐ Sampson County Disposal, Roseboro, NC	910-525-4132	Veronica Lee, Sales	919-422-9057 Mobile
☐ Grady Road Landfill, Rockmart, GA	770-748-8276	Julie Brookshire, Sales	
☒ Taylor County Landfill, Mauk, GA	478-862-2610	Rhonda Poston, Sales	
☐ Waste Services of Decatur, Bath Springs, TN	731-549-3567		
☐ Lakeway Landfill and Recycling, Lowland, TN	423-581-1053	Dan Winters/Amy Bridges	

GENERATOR INFORMATION

Frequency: (Check One) ☐ One Time Event ☒ Continuous Waste Stream ☐ Weekly ☒ Monthly ☐ Other			
Generator Name: [redacted]		Phone No: [redacted]	
Generator's Physical Address: [redacted]		City: [redacted]	
State: GA	Zip Code: 30071	Fax No:	
Generator's Mailing Address: [redacted]		City: [redacted]	
State: GA	Zip Code: 30017	State I.D. No:	SIC Code: 7549
Generator/Generator Designee Contact Name: [redacted]		Email Address: [redacted]	
Physical (Site) Address of Waste Stream Profiled: [redacted]			
City: [redacted]	State: GA	County: Gwinnett	

BILLING CUSTOMER INFORMATION

Customer Name: [redacted]		Contact Person: [redacted]	
Address: [redacted]	City: Atlanta	State: GA	Zip: 30315
Phone No: [redacted]	Fax No.:	Email Address: [redacted]	

TRANSPORTER INFORMATION

Transporter Name: [redacted]		Contact Person: [redacted]	
Address: [redacted]	City: Atlanta	State: GA	Zip: 30315
Phone No: [redacted]	Fax No.:	Email Address: [redacted]	

WASTE STREAM INFORMATION

Common Name of Waste: Ethelene Glycol Still Bottoms
Process Generating Waste: Distillation process
Type of Waste: ☒ INDUSTRIAL PROCESS ☐ POLLUTION CONTROL WASTE
Physical State at 70 degrees F: ☐ SOLID ☐ SEMI-SOLID ☐ POWDER ☒ LIQUID ☐ OTHER
Method of Shipment: ☒ BULK ☐ DRUM ☐ BAGGED ☐ OTHER/explain: _____
Estimated Volume: Cubic Yards _____ Tons 20 Other_____ Permanent Waste Stream? ☒ Yes ☐ No
Special Handling Instructions:

COMPOSITION BREAKDOWN

Color	Odor (describe):	Free Liquids	% Solids:	pH:	Flash Point	Phenol
Black/Brown	Sweet	☒ Yes ☐ NO Content: 100%	0	9-11	>200 Degrees F	0ppm

Physical Description/Characteristics of Waste: Liquid

REPRESENTATIVE SAMPLE CERTIFICATION

Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA § 40 CFR 261 .20 © guidelines or equivalent rules? ☐ YES ☒ NO	
Sample Date:	☐ Composite Sample ☐ Grab Sample
Sample's Employer:	Date:
Sampler's Name (printed):	Signature:
Analytical testing performed and MSDS sheets submitted with this profile worksheet: (please circle) ☐ TCLP ☐ Paint Filter Test ☐ MSDS Sheets ☐ Other (describe): _____	

Attach Laboratory Analytical Report (and/or Material Safety Data Sheet) Including Required Parameters for this Profile

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, 2, 4, 5, -TP Silvex as defined in § 40 CFR 261.33?	☐ Yes ☒ No
Does this waste or the generating process cause it to exceed OSHA exposure limits from high levels of Hydrogen Sulfide Or Hydrogen Cyanide as defined in § 40 CFR 261.23?	☐ Yes ☒ No
Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCB's) as defined in § 40 CFR Part 761?	☐ Yes ☒ No
Does this waste contain regulated concentrations of listed hazardous wastes defined by § 40 CFR 261.31, 261.32, 261.33, Including RCRA F-Listed Solvents?	☐ Yes ☒ No
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
Is this a regulated Toxic Material as defined by Federal and/or State Regulations?	☐ Yes ☒ No
Is this a regulated Radioactive Waste as defined by Federal and/or State Regulations?	☐ Yes ☒ No
Is this a regulated Medical or Infectious Waste as defined by Federal and/or State Regulations?	☐ Yes ☒ No
Is this waste generated at a Federal Superfund Clean Up Site?	☐ Yes ☒ No

GENERATORS CERTIFICATION

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the waste material being offered for disposal. 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, medical or infectious waste, or any other waste material this facility is prohibited from accepting by law. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue. I understand that Waste Industries, Inc. Sampson County Disposal can only receive Non-Hazardous Waste.

The generator will notify Waste Industries, Sampson County Disposal of any changes in character or quantity of the waste prior to delivery. An annual, updated analytical report (if applicable) will be submitted to Waste Industries, Sampson County Disposal each year for the length of time the waste is disposed of in the above-mentioned disposal site.

[redacted] / partner — [redacted]

AUTHORIZED REPRESENTATIVE NAME AND TITLE (PRINTED) — COMPANY NAME

AUTHORIZED REPRESENTATIVE SIGNATURE — DATE 12/8/2020

The Generator is responsible for completing the Signature Authorization and/or Third Party Signature Authorization for Disposal, if applicable. Only, when Generator of the Waste is not authorizing designee(s) to sign in their behalf and will sign all documents and manifests, page 3 will not required.

Approved permanent special waste profiles are subject to the Renewal Process Knowledge Certification process to remain active for disposal of waste. Generator will be notified by the disposal facility/landfill designee 60 days prior to expiration date and all requested information for recertification must be received 10 days before expiration date for processing to prevent inactivation status.

Signature Authorization and/or Third Party Signature Authorization

The Signature Authorization and/or Third Party Signature Authorization form must be completed by the Generator of the Waste to represent Generator's Designee(s), when the Generator of the Waste Stream is *NOT* signing documents for special waste approval and Waste Industries preprinted manifest. NO EXCEPTIONS.

As generator of the waste stream, I herby certify that I am authorized to approve the names of personnel and/or authorized agents that will sign on behalf of the Generator.

Generator of Waste Stream (Company or Individual)	[redacted]
Generator's Signature	[redacted]
Print Signature & Title	[redacted]
Generator's Address	[redacted]
Telephone Number	[redacted]
Date	12/8/2020

The following individuals/broker designees are authorized to sign as a representative(s) of the generator or as an agent for the generator for the following purposes (check those that apply):

- ☐ 1. Complete and sign Generator Waste Profile Worksheets.
- ☐ 2. Sign contracts to dispose and/or transport material.
- ☐ 3. Sign certifications necessary to comply with landfill requirements.
- ☐ 4. Sign manifests to initiate shipment to disposal facility.
- ☐ 5. Other, _____

When applicable, the authorized designee will be responsible for all notification or information requested by the generator.

Approved List of Authorized Individuals/Broker Designees by Generator:

Name of Individual	Title	Name Of Company	Telephone No.

Roy Walton

From: Shane Chasteen <shane.chasteen@catlinusa.com>
Sent: Wednesday, May 16, 2018 4:50 PM
To: Roy Walton
Cc: Kameron Smith; Shawn McGuire
Subject: Statement about Fly Ash

Roy-

It was good to talk to you this afternoon. Per your request, below is a statement we put together about the fly ash that the TCLF uses for solidification.

Fly ash is an inert, stable material used for the solidification of waste streams containing free liquids. The use of fly ash in the solidification process would not appear to cause any reactivity or flammability concerns. Therefore, the continued use of this material in the solidification process at the TCLF appears to be a safe and efficient manner to solidify free liquids.

Just let us know if you need anything else. Thanks,

Shane

Shane A. Chasteen, P.G.
CATLIN Engineers and Scientists
P.O. Box 10279
Wilmington, NC 28404-0279
(Office) 910-452-5861
(Mobile) 910-352-3564
(Fax) 910-452-7563
(E-mail) shane.chasteen@catlinusa.com
(Web) www.catlinusa.com

TAYLOR COUNTY LANDFILL

DUST SUPPRESSION LOG

Month: March

DATE	# OF LOADS	LOCATION	EMPLOYEE NAME
3-1-21	6		
3-2-21	Rain		
3-3-21	6		
3-4-21	10		
3-5-21	9		
3-6-21			
3-7-21		Sunday	
3-8-21	7		
3-9-21	9		
3-10-21	10		
3-11-21	10		
3-12-21			
3-13-21			
3-14-21		Sunday	
3-15-21	9		
3-16-21	Rain		
3-17-21	Wet		
3-18-21	Rain		
3-19-21	[redacted]5		
3-20-21			
3-21-21		Sunday	
3-22-21	9		
3-23-21	9		
3-24-21	Rain		
3-25-21			

Appendix B
Notification Letters

WASTE INDUSTRIES www.wasteindustries.com

208 Southern States Rd | Mauk, GA 31058 Taylor County Landfill

March 23, 2017

Honorable Randall F. Nelson, Chairman
Taylor County Board of Commissioners
7 Ivy Street
Butler, Georgia 31006

Subject: **WI - Taylor County Landfill**
CCR Management Plan

Dear Commissioner Nelson:

The Rules of Georgia Department of Natural Resources, Environmental Protection Division for Solid Waste Management, 391-3-4-.07 (5) state in part that *"The owner or operator shall notify the local governing authorities of any city and county in which the landfill is located upon the submittal of the CCR Management Plan to EPD."*

The Taylor County Landfill is located within Taylor County, so in accordance with this requirement, we are providing notice that we have submitted a CCR Management Plan to EPD for their review and approval.

Sincerely,

Roy Walton
General Manager

Cc: Jeff Browne, P.E.

WASTE INDUSTRIES www.wasteindustries.com

208 Southern States Rd | Mauk, GA 31058 Taylor County Landfill

March 23, 2017

Honorable Walter Turner, Mayor
City of Reynolds
P.O. Box 386
Reynolds, Georgia 31076-0386

Subject: **WI - Taylor County Landfill**
CCR Management Plan

Dear Mayor Turner:

The Rules of Georgia Department of Natural Resources, Environmental Protection Division (EPD) for Solid Waste Management, 391-3-4-.07 (5) state in part that *"The owner or operator shall notify the local governing authorities of any city and county in which the landfill is located upon the submittal of the CCR Management Plan to EPD."* Furthermore, EPD has prepared a guidance document for CCR Management which states, *"The owner or operator shall notify the local governing authorities of the county, **and any city within the county**, in which the landfill is located upon initial submittal of a CCR Management Plan to EPD."*

The Taylor County Landfill is located within Taylor County, and the City of Reynolds is also in Taylor County, so in accordance with this requirement, we are providing notice that we have submitted a CCR Management Plan to EPD for their review and approval.

Sincerely,

Roy Walton
General Manager

Cc: Jeff Browne, P.E.

WASTE INDUSTRIES www.wasteindustries.com

208 Southern States Rd | Mauk, GA 31058 Taylor County Landfill

March 23, 2017

Honorable William B. Whitley, Mayor
City of Butler
P.O. Box 476
Butler, Georgia 31006

Subject: **WI - Taylor County Landfill**
CCR Management Plan

Dear Mayor Whitley:

The Rules of Georgia Department of Natural Resources, Environmental Protection Division (EPD) for Solid Waste Management, 391-3-4-.07 (5) state in part that *"The owner or operator shall notify the local governing authorities of any city and county in which the landfill is located upon the submittal of the CCR Management Plan to EPD."* Furthermore, EPD has prepared a guidance document for CCR Management which states, *"The owner or operator shall notify the local governing authorities of the county, **and any city within the county**, in which the landfill is located upon initial submittal of a CCR Management Plan to EPD."*

The Taylor County Landfill is located within Taylor County, and the City of Butler is also in Taylor County, so in accordance with this requirement, we are providing notice that we have submitted a CCR Management Plan to EPD for their review and approval.

Sincerely,

Roy Walton
General Manager

Cc: Jeff Browne, P.E.

Appendix C
Golder Report

February 5, 2021 Project No. 20137511.401

Mr. Roy Walton
WI Taylor County Disposal, LLC
33 Stewart Road
Mauk, Georgia 31058

RE: SITE AND POND INSPECTION REPORT - TAYLOR COUNTY LANDFILL, PERMIT NO. 133-003D (SL), TAYLOR COUNTY, GEORGIA

Dear Roy,

Golder Associates Inc. (Golder) appreciates the opportunity to visit with you and your team at the Taylor County Landfill to complete the site inspection and obtain samples. Samples were then observed under a microscope, tested for relative pH, and tested for analysis of select metals. The following summary presents Golder's observations, sample identification, and results of testing, along with our professional opinion regarding potential impacts to Pond 1 and Pond 7.

Summary of Site Visit Observations

Golder conducted site visits on December 30, 2020 and January 5, 2021 to identify if coal combustion residuals (CCR) are present within soils in and around Pond 1 and Pond 7 at the above-referenced facility. The site visit was conducted by Russell Stapp of Golder's Atlanta office. Russell's subject matter expertise is CCR developed over 28 years of testing CCR, Research & Development, new product development, coal combustion chemistry and coal fired plant operations in both Circulated Fluidized Bed (CFB) and Pulverized Coal (PC) Boiler plants.

Prior to the site visits, we initiated a general discussion with site personnel about the circumstances regarding the sample request and site observation. Golder understands that concern was raised by the Georgia (GA) Environmental Protection Division (EPD) about the potential presence of CCR in and around Pond 1 based on visual observations during the October 22, 2020, site inspection as noted in the November 10, 2020, letter from GA EPD. Pond 7 is the pond that receives runoff from the railyard. Golder's objective was to evaluate and obtain samples from the site, specifically the area of concern (Pond 1), Pond 7, background soil in future Cells 22 or 23, crushed concrete samples that are utilized in roadbeds, and CCR (CFB Ash from Jacksonville Electric Authority or JEA).

Golder inspected the accessible soils in and immediately adjacent to Pond 1 and Pond 7 with the help of WI's Tanner Dykes. A hand auger was used to obtain samples for inspection at depths up to 12 inches. Samples were observed around the inlet areas and other accessible areas of the pond. Generally, samples were relatively homogenous. No 'hardpan' zones were noted, as would be expected if significant amounts of CCR were present due to the composition of the ash (e.g., calcium oxides). There were areas of gray colored materials at Pond 7; however, these materials appeared to be consistent with the sub-base and road surface (limestone-gravel) materials.

Based on site visit observations, no evidence of CCR was identified in or around Pond 1 or Pond 7; this material was observed where CCR is off loaded within the rail spur area. *De minimus* amounts of surficial soil contamination with CCR would be expected in this area based on standard operating procedures.

The following is a summary of the sample locations and general descriptions. The locations are shown on the attached Figure 1. Each sample was labeled and reviewed for anomalies compared to expected soil. All samples obtained and logged appeared to be sand, clay or a mix, but no obvious visual signs of CCR appeared to be in the pond samples or observed locations.

Samples with Identification, location, and coordinates (where required) for additional samples for Pond 1:

1. **Pond 1:** (2 inlet pipes to pond) - **Sample 1A** taken at inlet pipe 1 area
    a. N 32.44545
    b. W 084.38935
        i. Samples were all native sand. No indication of CCR.
2. **Pond 1**: **Sample 1B** taken at inlet pipe 2 area
    a. N 32.44417
    b. W 084.38945
        i. Samples were all native sand. No indication of CCR. Similar observations at inlet pipe 1.
3. **Pond 1**: **Sample 1C** - Sandy soil, clay at base of sample. No indication of CCR.
    a. N 32.44424
    b. W 084.39002
4. **Pond 1**: **Sample 1D** - Clay with sand mixed in. No indication of CCR.
    a. N 32.44429
    b. W 084.39028
5. **Pond 1**: **Sample 1E** - Clay with minimal mixed sand. No indication of CCR.
    a. N 32.44452
    b. W 084. 39030
6. **Pond 1: Sample 1F**- Heavy clay, minimal sand. No indication of CCR.
    a. N 32.44479
    b. W 084.39048

Samples with Identification, location, and coordinates (where required) for Pond 7:

1. **Inlet pond 7:** (2 inlet pipes to pond) - **Sample 7A** taken at inlet pipe 1 area

a. N 32.46241

b. W 084.37674

i. Samples were almost all native sand. There appeared to be little sediments (expected) nor did one get an indication of CCR.

2. **Inlet pond 7**: **Sample 7B** taken at inlet pipe 2 area

a. N 32.46231

b. W 084.37673

i. Samples were almost all native sand. There appeared to be little sediments (expected) nor did one get an indication of CCR. Very similar to inlet pipe 1.

3. **Inlet Pond 7**: **Sample 7C** - area had more sediment and fines as expected with some sand. Taken due north of sample A

a. N 32.46229

b. W 084.37642

4. **Inlet Pond 7**: **Sample 7D** - area had more sediment and fines as expected, looks like clay. Area was very muddy and soft.

a. N 32.46172

b. W 084.37658

5. **Inlet Pond 7**: **Sample 7E** - area had more sediment and fines as expected, looks like clay. Area was very soft and accessing was getting difficult due to unstable surface. Last sample obtained in the inlet pond.

a. N 32.46133

b. W 084. 37659

Samples with Identification, location, and coordinates (where required) for additional samples:

1. **CFB Fly Ash:** Rail load out system. 4 Pneumatic rail cars, with one transferring to transfer truck. Sample taken at pipe source under rail car.

2. **Crushed concrete**: **2 samples** obtained #1 of which is fine and #2 is coarser

a. N 32.44904

b. W 084.38336

3. **Cell 22** 0 - 6” is native sandy soil (background sample)

a. N 32.45493

b. W 084.37964

4. **Cell 22** Soil sample: 6" – 12" is native sandy-clay soil (background sample)
    a. N 32.45493
    b. W 084.37964
5. **Cell 22** Soil sample: first 6" is native sandy soil (background sample)
    a. N 32.45547
    b. W 084.37972

Note: Cell 22 and 23 background sampling locations were"estimated by Tanner Dykes.

Golder took photographs at each sampling location (see attached photographic log). Based on our field observations, there are no obvious indicators of ash in the soil samples collected in and around the pond.

Summary of Microscopic Study

Samples collected during the field investigation were observed under a Fisher Scientific, Micromaster, Model E light microscope using a 100X lens and select photographs are included as an attachment to this report. When an analyst reviews CCR with use of microscope, cenospheres are the typical particle shapes of PC boiler systems along with residual carbon particulate of amorphous shapes. CFB ash is typically non- spherical due to the circulation causing consistent collisions of particles forming angular shapes of all sizes. Some spherical shapes are formed but are minimal depending on the combustion temperatures.

Golder analyzed thirteen (13) samples to determine if any spheres were apparent but more importantly compare the control samples of JEA ash and background soils to Pond 1 and Pond 7 samples. The ash particles are angular – elongated, almost all non-spherical shapes with a wide range in particle size and very coarse. Due to the calcium oxide (CaO) composition of the ash, we viewed samples to determine if there were cemented particles, as this would be expected if significant amounts of ash were in contact with sand and clay (i.e., materials containing silica). We did not observe cemented particles or cenospheres in the prepared slides of upgradient samples or the Pond 1 and Pond 7 soil samples. Based on our microscopic observations, there are no obvious indicators of ash in the soil samples collected in and around Pond 1 and Pond 7.

Summary of pH Testing

Select samples collected during the field investigation were tested using a phenolphthalein solution to determine relative pH values. CCR contains significant concentrations of calcium hydroxide solution, $Ca(OH)_2$, which is a base. Therefore, when the phenolphthalein is added to materials containing CCR, it will turn a pink color. Several tests were run both sequentially and simultaneously, and multiple times.

The JEA ash and crushed concrete were tested with the phenolphthalein solution, and both turned bright pink. In contrast, soil samples from the pond were non-reactive and did not change color (see attached photographs). The solution was allowed to remain on the samples for one hour to allow ample time for reactions, although the reactions (i.e., color change) for the JEA ash and crushed concrete were instantaneous. Based on our reaction observations, there are no obvious indicators of ash in the soil samples collected in and around Pond 1 and Pond 7.

Summary of Chemical Analyses

Several samples were collected by site personnel and Golder on November 17, 2020 and compared to JEA ash samples collected as part of semi-annual routine testing on July 15, 2020. Samples include background/upgradient borrow area, Pond 1, haul road in close proximity to leachate sumps, and potential source samples of crushed concrete and JEA ash. Samples were analyzed for Resource Conservation and Recovery Act (RCRA) total metals plus nickel and vanadium, and toxicity characteristic leaching procedure (TCLP) for RCRA metals (see attached laboratory certificates-of-analysis). Nickel and vanadium were chosen as they are typically associated with the type of CCR that is accepted at this facility, as potential indicators of CCR impacts to Pond 1. Results are shown on the attached Table 1 and Table 2.

Based on our observations, no metals were detected in any sample including JEA ash at concentrations above applicable hazardous limits for solids or liquids. As shown on Table 1, concentrations of metals detected in samples from Pond 1 and the nearby roadbed are generally similar to or less than those detected from the upgradient borrow area and are therefore likely naturally occurring. Given that the concentrations of hallmark indicators nickel and vanadium for the JEA ash were diluted and significantly higher than those found in other soil samples, it is unlikely that a significant amount of ash is present in the Pond 1 sample. If there was a significant CCR impact at Pond 1, concentrations of those indicator metals would likely be higher than those detected rather than similar to background concentrations.

To supplement observations of analytical data, a desktop study was performed to determine the prevalence of arsenic, cadmium, chromium, lead, nickel and vanadium in soil and sediment in Taylor County, GA. Data for 10 sediment samples from Taylor County were reviewed in the United States Geological Survey (USGS) *National Geochemical Survey Database* (presented in Table 3. As shown on Table 3, arsenic concentrations range from 1.0 parts per million (ppm) to 25 ppm, cadmium concentrations were not detected, chromium concentrations range from 11 ppm to 66 ppm, lead concentrations range from 5 ppm to 40 ppm, nickel concentrations range from not detected to 10 ppm, and vanadium concentrations range from 20 ppm to 90 ppm in the sediment samples collected from Taylor County. Therefore, these constituents are likely to occur in subsurface soil in Taylor County at concentrations that would account for the concentrations in detected in onsite soil samples from Pond 1. Based on these data, there are no obvious indicators of ash in the soil samples collected in and around the pond.

Summary

Overall, field observations from our CCR expert, combined with microscopic, relative pH, and analytical testing do not support that Pond 1 has had any significant impacts from CCR. Similarly, the field observations from our CCR expert, combined with microscopic and relative pH testing do not support that Pond 7 has had any significant impacts from CCR. Based on data collected to date for Pond 7, additional testing does not appear to be necessary. The gray/white colors noted in and around Pond 1 during the October 22, 2020, inspection by GA EPD may be related to other onsite and/or natural sources. If you have any questions or require any additional information, please do not hesitate to contact us at (336) 852-4903.

Sincerely,

Golder Associates Inc.

Russell Stapp
Practice Leader

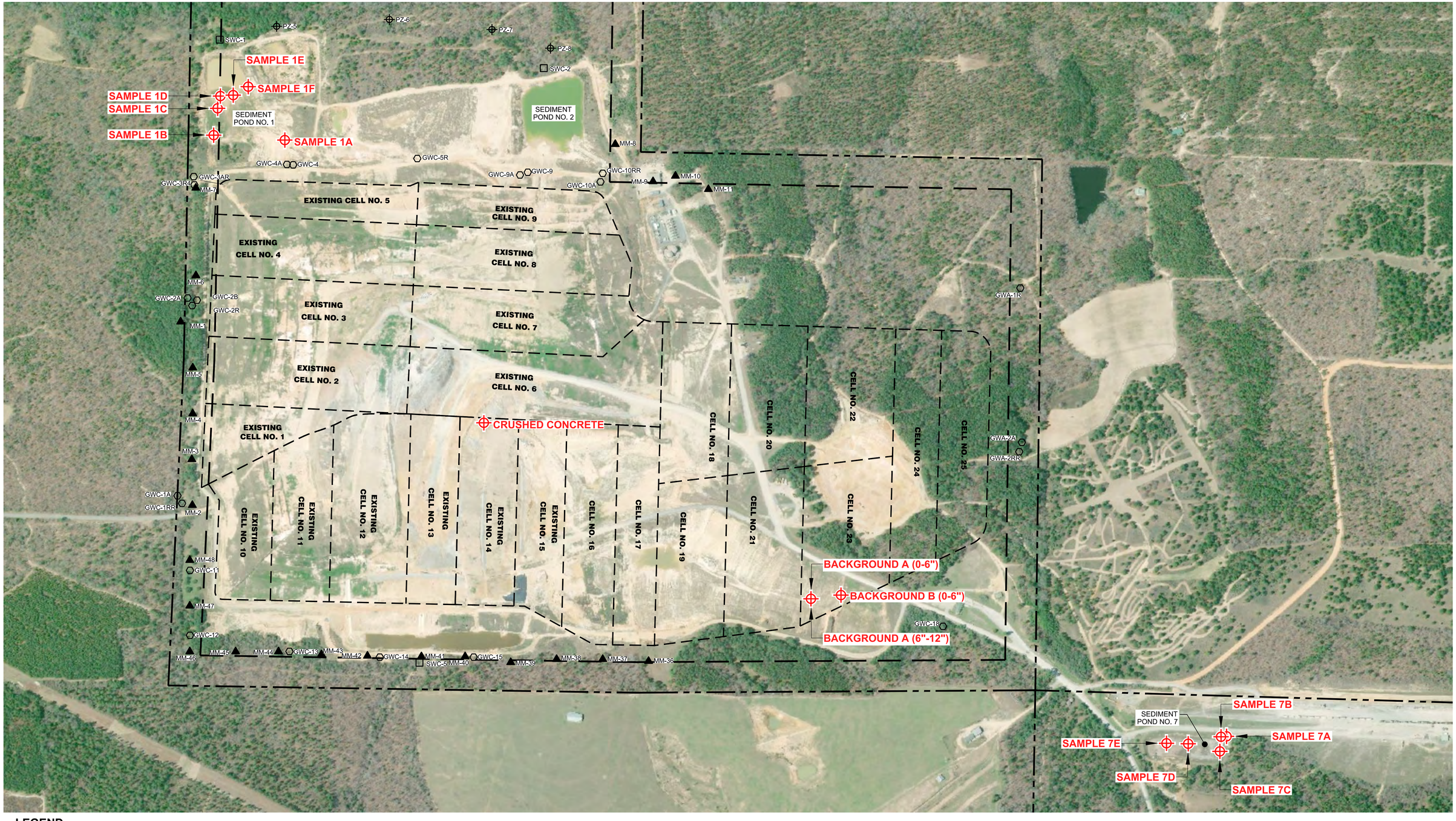
Rachel P. Kirkman, PG
Principal and Senior Consultant

RPK/RS/

CC: Edward Hood, GFL
Jeff Browne, PE – Browne and Company, LLC

Attachments: Figure 1 – Sample Locations
Photographic Log – Site Visit
Photographic Log – Microscopic Analysis
Photographic Log – Relative pH Testing
Table 1 – Summary of Solid Total Metals Results
Table 2 – Summary of TCLP Metals Results
Table 3 – Summary of USGS Metals Results
Laboratory Certificates-of-Analysis

https://golderassociates.sharepoint.com/sites/1785144/technical work/phase 400 general consulting/soil sampling/phase 401 site inspection/final report/rev sealed report/final pond inspection - taylor county lf.docx



LEGEND

— — —	PROPERTY LINE
— — —	200' BUFFER
— — —	LIMITS OF WASTE AND CELL BOUNDARIES
GWC-5R	MONITORING WELL IDENTIFICATION
MM-36	METHANE MONITORING POINT IDENTIFICATION
SWC-4	SURFACE WATER MONITORING POINT IDENTIFICATION
PZ-8	PIEZOMETER IDENTIFICATION
SAMPLE A	SAMPLE LOCATION AND IDENTIFICATION

N

300 0 300 600
SCALE FEET

CLIENT
WI TAYLOR COUNTY DISPOSAL, LLC

CONSULTANT
GOLDER

YYYY-MM-DD	2021-01-06
PREPARED	BPG
DESIGN	RPK
REVIEW	RPK
APPROVED	DYR

PROJECT
TAYLOR COUNTY LANDFILL
PERMIT NO. 133-003(SL)
MAUK, GEORGIA

TITLE
SAMPLE LOCATIONS

PROJECT No. 20137511 | Rev. 0 | FIGURE 1

0 1 in
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

Path: \\richmond\data\Plan Production Data Files\Drawing Data Files\20-137511\020_SAMPLE LOCATION MAP\Active Drawings\ | File Name: 20137511_020_02.dwg

Taylor County MSW Landfill: Site Inspection

Photo 1: Cell 23 - 22.

Photo 2: Crushed concrete stockpile - sample location.

Taylor County MSW Landfill: Site Inspection

Photo 3: Sediment Pond 1, Sample A, near Inlet Pipe 1.

Photo 4: Sediment Pond 1 Inlet Pipe 2.

Taylor County MSW Landfill: Site Inspection

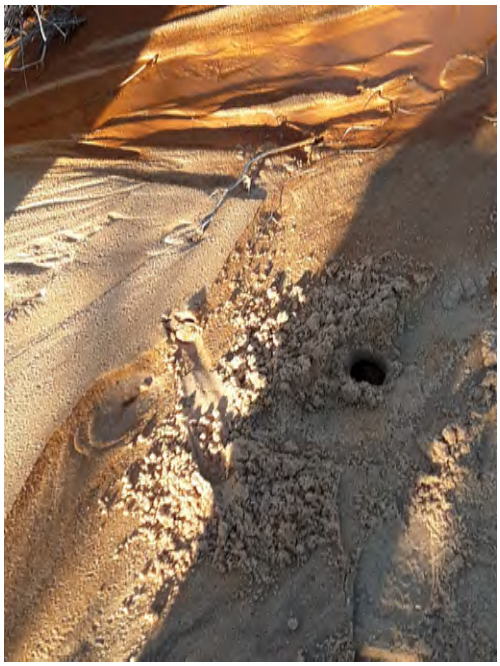


Photo 5: Sediment Pond 1, Sample B location at inlet pipe #2 (shown above).

Photo 6: Sediment Pond 1 Sample C location.

Taylor County MSW Landfill: Site Inspection

Photo 7: Sediment Pond 1, Sample D.

Photo 8: Sediment Pond 1 Sample E.

Taylor County MSW Landfill: Site Inspection

Photo 9: Sediment Pond 1, Sample F.

Photo 10: Sediment Pond 7, Inlet pipe #1.

Taylor County MSW Landfill: Site Inspection

Photo 11: Sediment Pond 7, Sample A location, beneath inlet pipe #1 (shown above).

Photo 12: Sediment Pond 7, Sample B location, at inlet pipe #2.

Taylor County MSW Landfill: Site Inspection

Photo 13: Sediment Pond 7, Sample D location.

Photo 14: NE view from Sample D location, located within sediment pond 7.

Taylor County MSW Landfill: Site Inspection

Photo 15: Overview of sediment pond 7.

Taylor County MSW Landfill: Site Inspection - Microscope Review

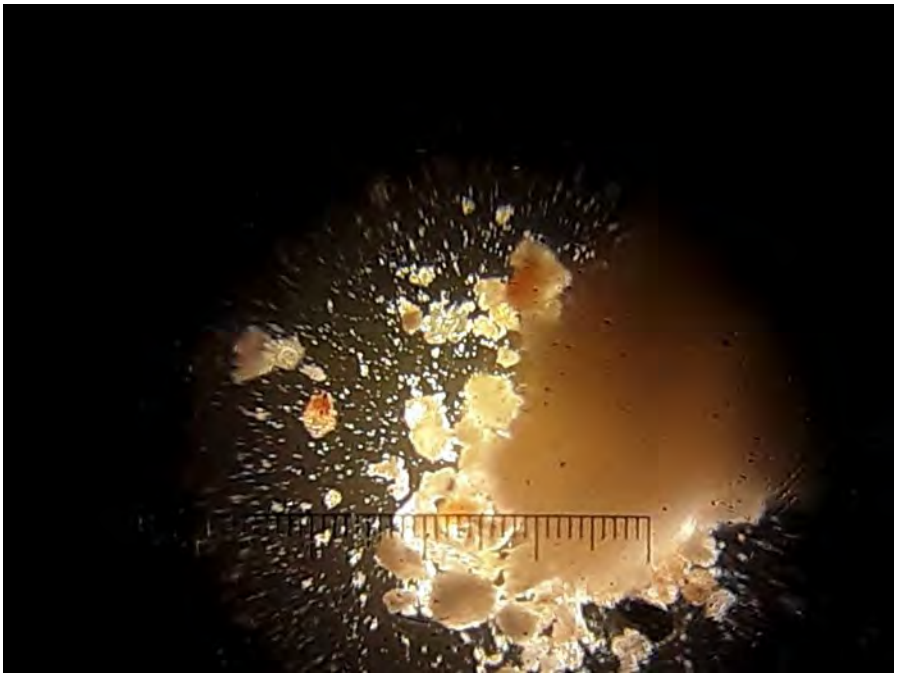


Photo 1: JEA ash

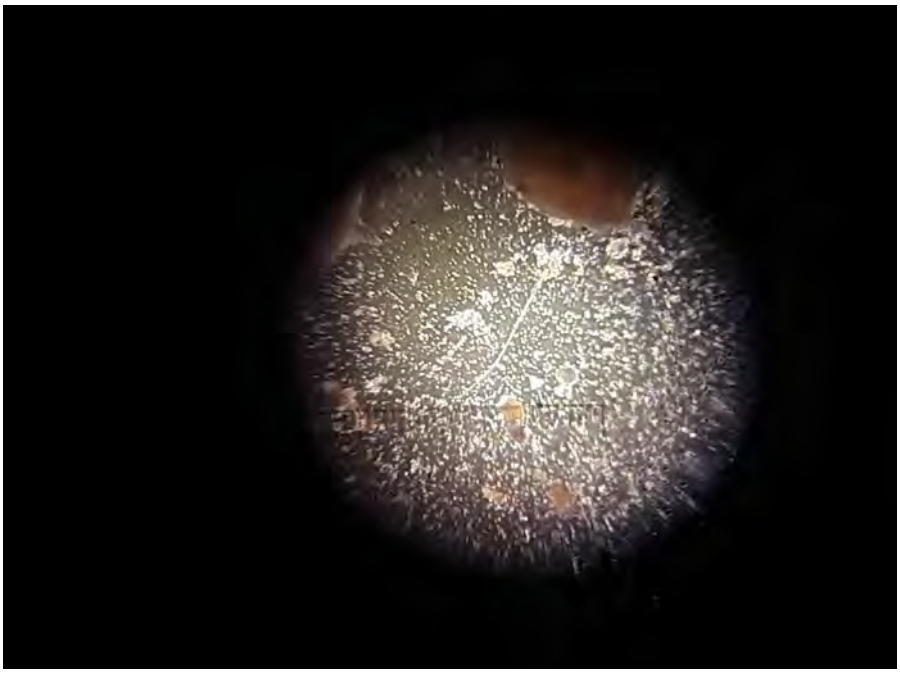


Photo 2: JEA ash

Taylor County MSW Landfill: Site Inspection - Microscope Review

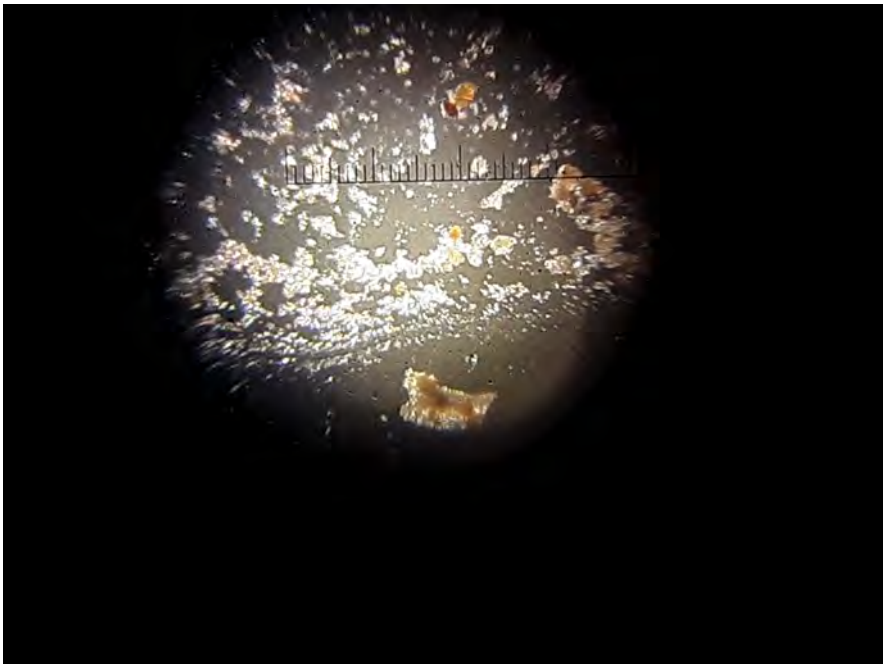


Photo 3: Moist surficial soil near Pond 1

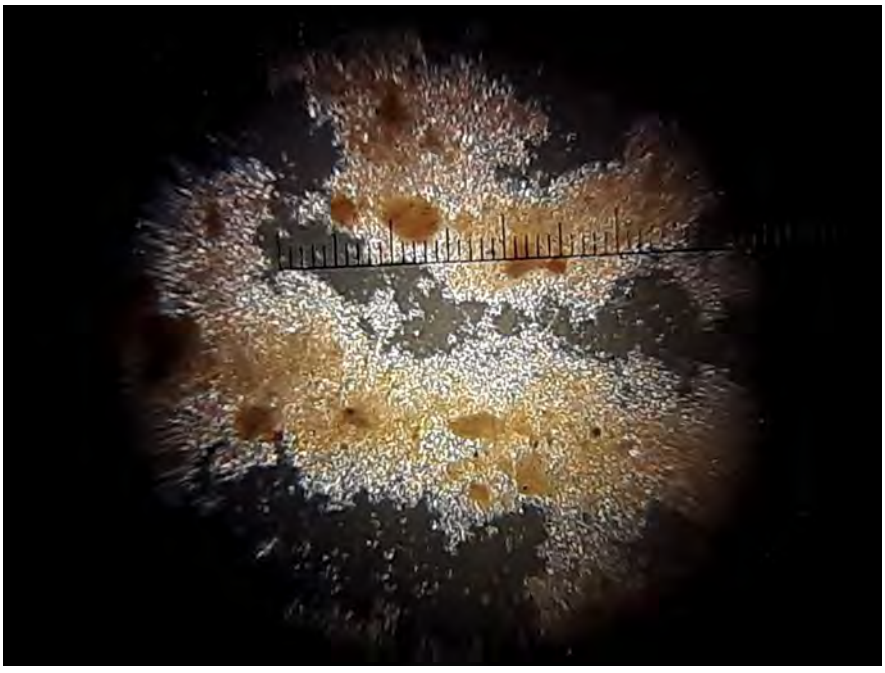


Photo 4: Pond 1, sample B, inlet pipe 2 soil sample

Taylor County MSW Landfill: Site Inspection - Microscope Review

Photo 5: Pond 1 sample B inlet pipe 2

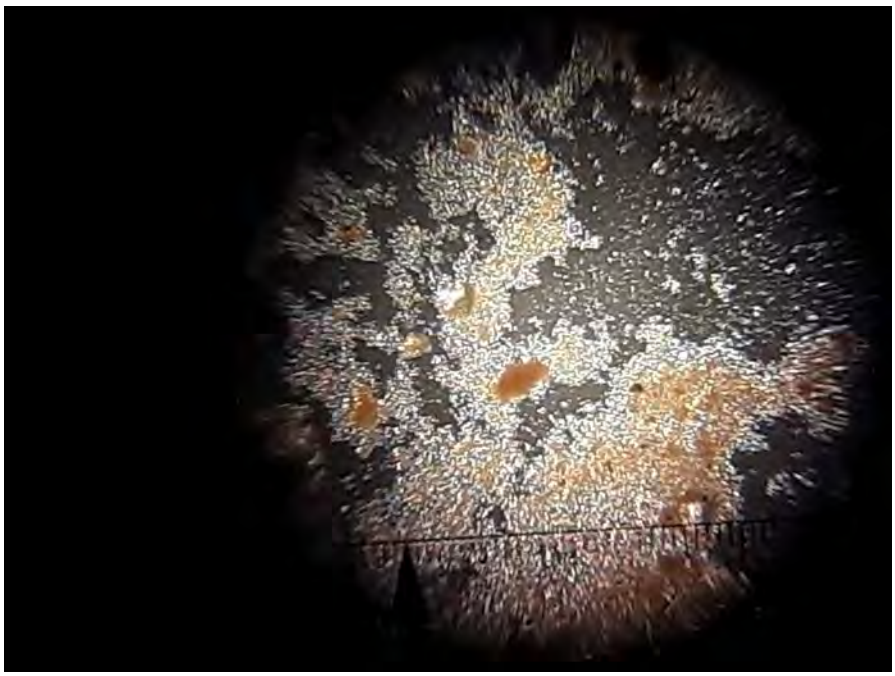


Photo 6: Cell 22 borrow soil at depth (background)

Taylor County MSW Landfill: Site Inspection - Microscope Review

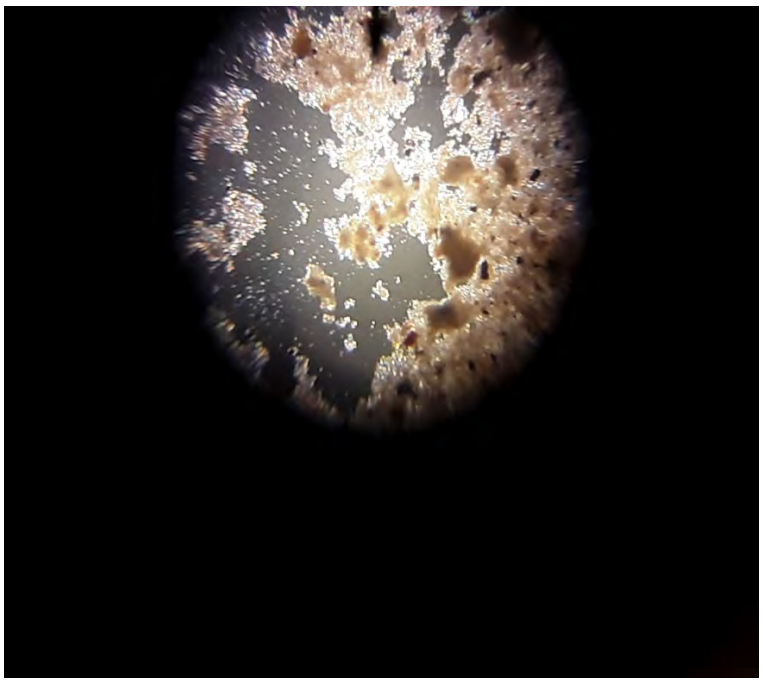


Photo 7: Pond 7 Sample E 100X, sand & silt fines

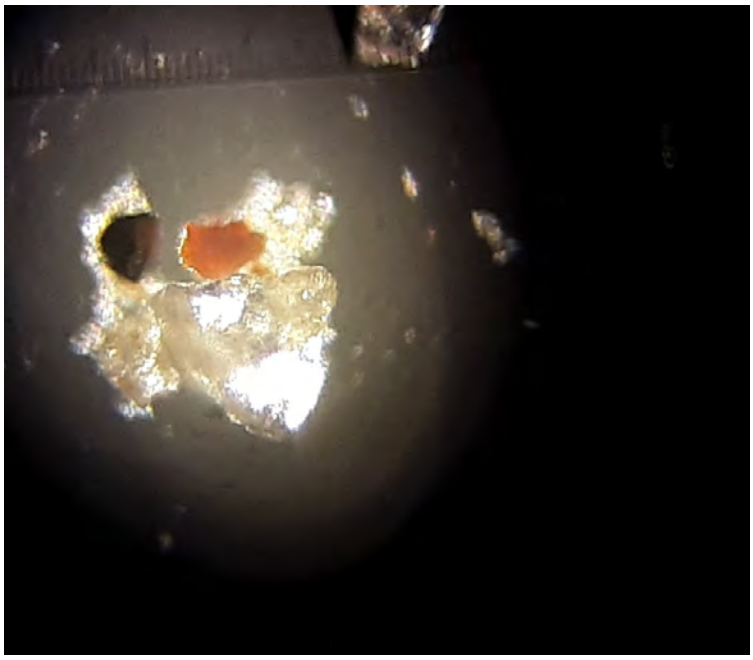


Photo 8: Pond 7, Sample A Inlet Pipe 1, Sand

Taylor County MSW Landfill: Site Inspection - Phenolphthalein

Photo 1: **CFB** **Cell 22** **Pond 1, Sample E** **Pond 1, Moist & Dried Soil, & Dust Covered Plant**

Photo 2: **Sequence of first 8 tests with controls - JEA Ash (far left), 5 Pond 1 soil samples, crushed concrete and Pond 1 soil**

Taylor County MSW Landfill: Site Inspection - Phenolphthalein

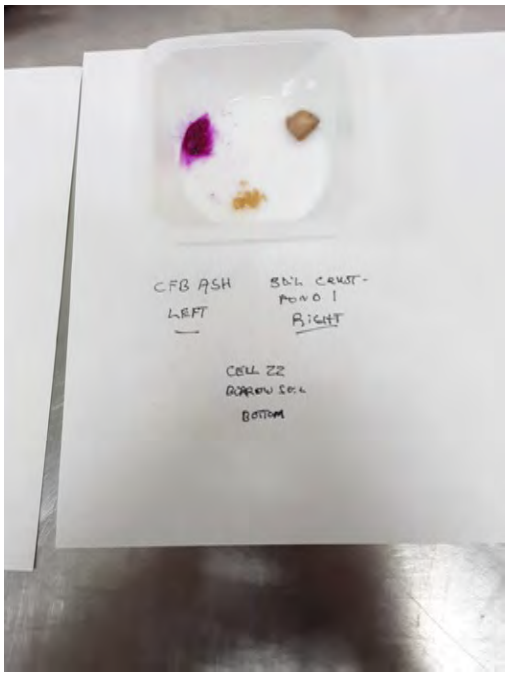


Photo 3: **JEA Ash** **Pond 1 Soil (Dried)** **Cell 22 Borrow (upgradient)**

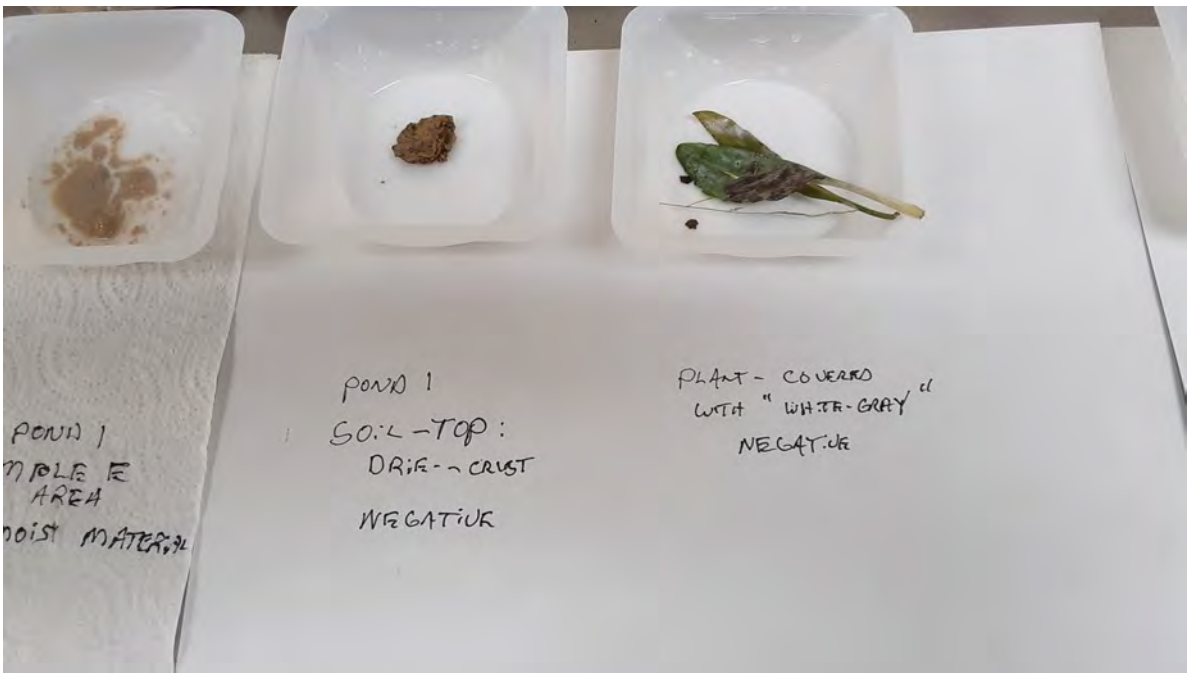


Photo 4: **Pond 1, Sample E (Moist Soil)** **Pond 1 Soil (Dried)** **Pond 1 Plant Covered w/ Dust**

Taylor County MSW Landfill: Site Inspection - Phenolphthalein

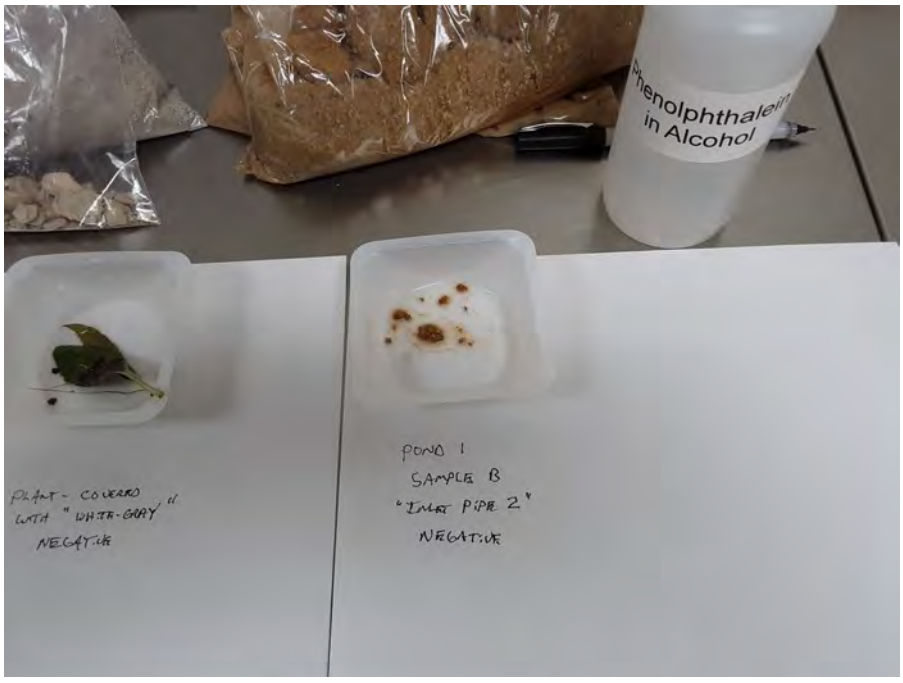


Photo 5: **Pond 1 Plant covered with dust** **Pond 1, Sample B Inlet Pipe 2**

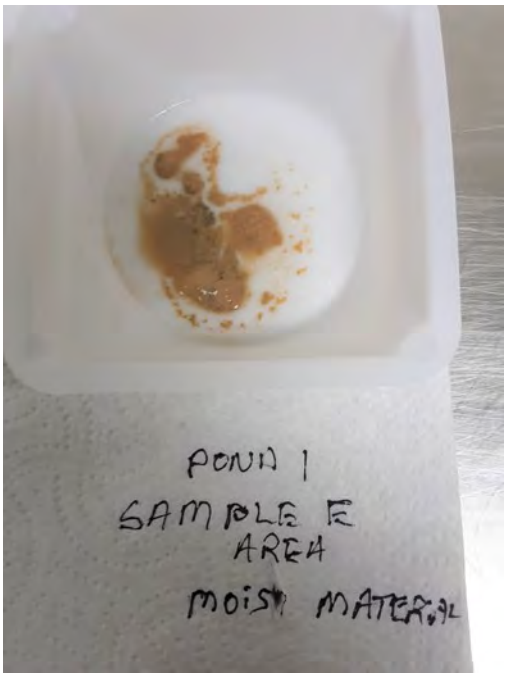


Photo 6: **Pond 1 Sample E, Moist Surface Material**

Taylor County MSW Landfill: Site Inspection - Phenolphthalein

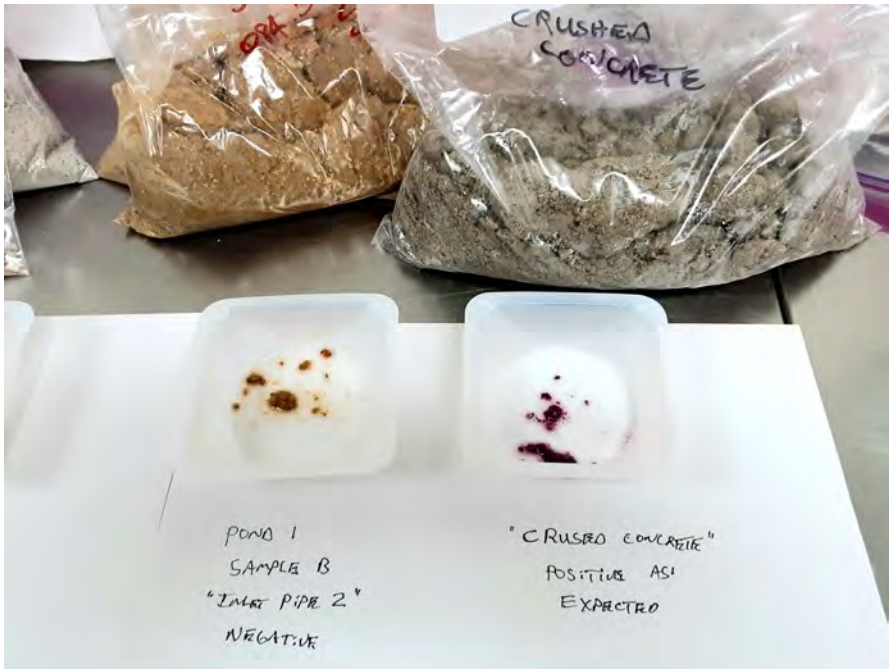


Photo 7: **Pond 1, Sample B Inlet Pipe 2** **Crushed Concrete**

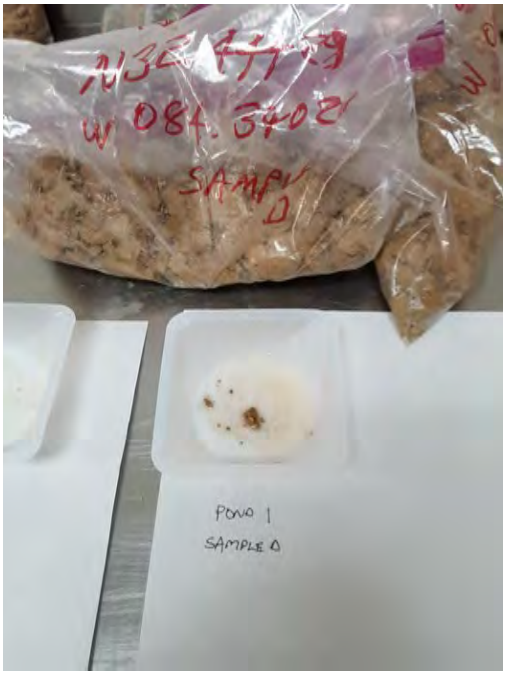


Photo 8: **Pond 1 Sample D**

Taylor County MSW Landfill: Site Inspection - Phenolphthalein

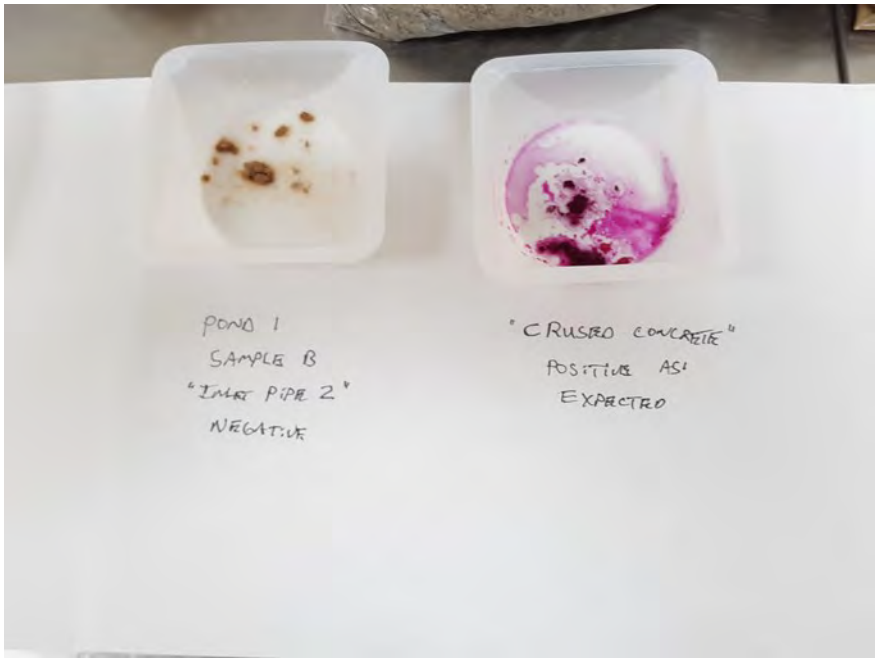


Photo 9: **Pond 1, Sample B Inlet Pipe 2** **Crushed Concrete**

Photo 10 : **JEA Ash** **Cell 22 Borrow Sand** **Pond 1, Sample E Moist Soil**

Taylor County MSW Landfill: Site Inspection - Phenolphthalein

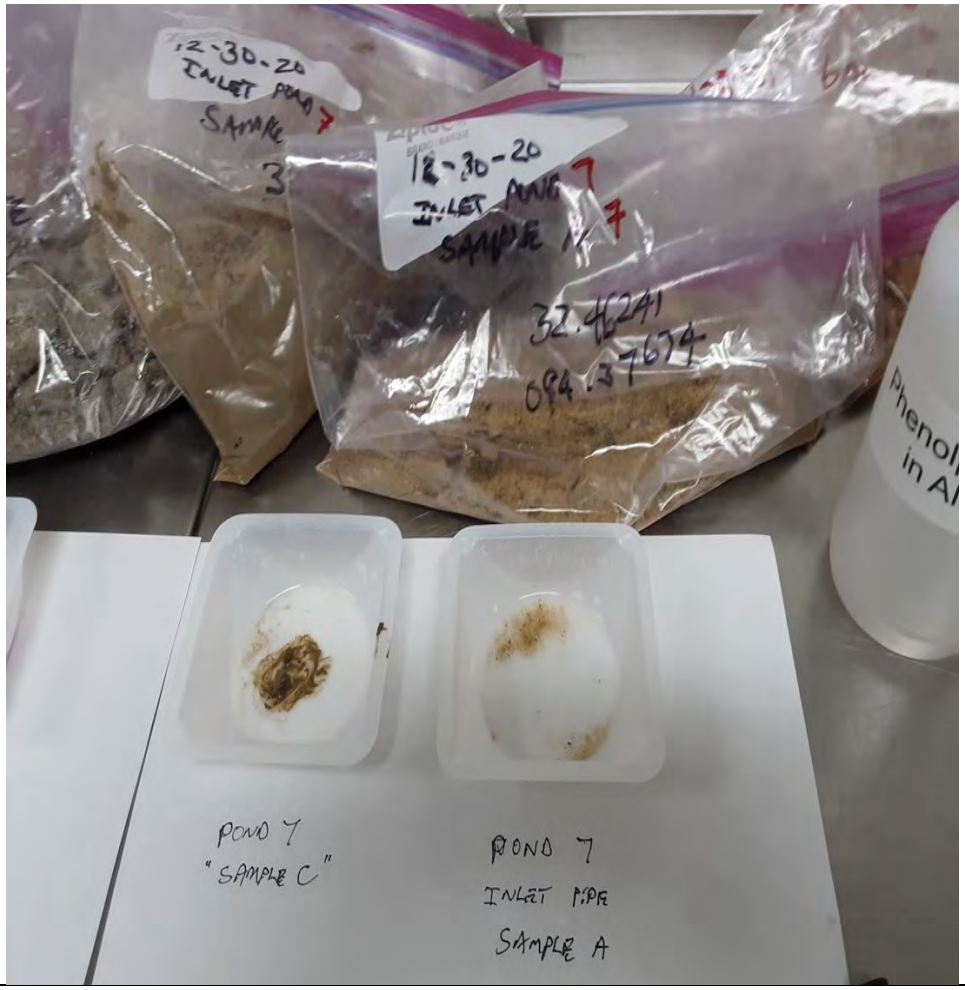


Photo 11: Pond 7, Sample C and Pond 7, Sample A Inlet Pipe

Table 1
Summary of Solid Total Metals Results
Taylor County Landfill, Permit No 113-003D (SL)
Mauk Georgia

Constituent	Type 3 RRS Surface Soil Limit	Sample Location	Date	Result	Units	Qualifier	MDL	QL
Arsenic	30	Borrow Area	11/17/2020	< 0.550	mg/Kg		0.352	0.550
	30	Crushed Concrete	11/17/2020	< 0.555	mg/Kg		0.355	0.555
	30	JEA Ash	7/15/2020	13.0	mg/Kg		0.192	1.00
	30	POND 1	11/17/2020	< 0.543	mg/Kg		0.347	0.543
	30	Road By Sumps	11/17/2020	0.904	mg/Kg		0.330	0.516
Barium	1648	Borrow Area	11/17/2020	6.35	mg/Kg		0.110	0.550
	1648	Crushed Concrete	11/17/2020	192	mg/Kg		0.111	0.555
	1648	JEA Ash	7/15/2020	14.2	mg/Kg		0.0930	1.00
	1648	POND 1	11/17/2020	1.57	mg/Kg		0.109	0.543
	1648	Road By Sumps	11/17/2020	7.20	mg/Kg		0.103	0.516
Cadmium	39	Borrow Area	11/17/2020	< 0.0550	mg/Kg		0.0106	0.0550
	39	Crushed Concrete	11/17/2020	< 0.0555	mg/Kg		0.0107	0.0555
	39	JEA Ash	7/15/2020	0.589	mg/Kg		0.0620	0.100
	39	POND 1	11/17/2020	0.0322	mg/Kg	J	0.0104	0.0543
	39	Road By Sumps	11/17/2020	0.146	mg/Kg		0.00990	0.0516
Chromium	1200	Borrow Area	11/17/2020	13.4	mg/Kg		0.110	0.550
	1200	Crushed Concrete	11/17/2020	13.5	mg/Kg		0.111	0.555
	1200	JEA Ash	7/15/2020	6.56	mg/Kg		0.0840	0.500
	1200	POND 1	11/17/2020	8.60	mg/Kg		0.109	0.543
	1200	Road By Sumps	11/17/2020	16.8	mg/Kg		0.103	0.516
Lead	400	Borrow Area	11/17/2020	2.84	mg/Kg		0.132	0.550
	400	Crushed Concrete	11/17/2020	3.23	mg/Kg		0.133	0.555
	400	JEA Ash	7/15/2020	< 0.500	mg/Kg		0.318	0.500
	400	POND 1	11/17/2020	2.02	mg/Kg		0.130	0.543
	400	Road By Sumps	11/17/2020	4.89	mg/Kg		0.124	0.516
Mercury	17	Borrow Area	11/17/2020	< 0.0679	mg/Kg		0.0506	0.0679
	17	Crushed Concrete	11/17/2020	< 0.0685	mg/Kg		0.0510	0.0685
	17	JEA Ash	7/15/2020	< 0.0100	mg/Kg		0.00390	0.0100
	17	POND 1	11/17/2020	< 0.0670	mg/Kg		0.0500	0.0670
	17	Road By Sumps	11/17/2020	< 0.0637	mg/Kg		0.0475	0.0637
Nickel	--	Borrow Area	11/17/2020	1.68	mg/Kg	J	0.396	2.75
	--	Crushed Concrete	11/17/2020	8.81	mg/Kg		0.399	2.77
	--	JEA Ash	7/15/2020	586	mg/Kg		7.95	25.0
	--	POND 1	11/17/2020	1.88	mg/Kg	J	0.391	2.71
	--	Road By Sumps	11/17/2020	1.34	mg/Kg	J	0.371	2.58
Selenium	36	Borrow Area	11/17/2020	< 0.550	mg/Kg		0.451	0.550
	36	Crushed Concrete	11/17/2020	< 0.555	mg/Kg		0.455	0.555
	36	JEA Ash	7/15/2020	< 2.00	mg/Kg		0.411	2.00
	36	POND 1	11/17/2020	< 0.543	mg/Kg		0.445	0.543
	36	Road By Sumps	11/17/2020	< 0.516	mg/Kg		0.423	0.516
Silver	96.56	Borrow Area	11/17/2020	< 0.550	mg/Kg		0.110	0.550
	96.56	Crushed Concrete	11/17/2020	< 0.555	mg/Kg		0.111	0.555
	96.56	JEA Ash	7/15/2020	< 0.500	mg/Kg		0.135	0.500
	96.56	POND 1	11/17/2020	< 0.543	mg/Kg		0.109	0.543
	96.56	Road By Sumps	11/17/2020	< 0.516	mg/Kg		0.103	0.516
Vanadium	--	Borrow Area	11/17/2020	26.2	mg/Kg		0.110	0.550
	--	Crushed Concrete	11/17/2020	25.6	mg/Kg		0.111	0.555
	--	JEA Ash	7/15/2020	1930	mg/Kg		5.96	25.0
	--	POND 1	11/17/2020	19.5	mg/Kg		0.109	0.543
	--	Road By Sumps	11/17/2020	27.9	mg/Kg		0.103	0.516

Notes: 1) Units are in milligrams per kilogram (mg/Kg). J = estimated value below the quanitation limit.
2) Nickel and vanadium results for JEA ash were diluted 50X.

3) Type 3 RRS Surficial Soil Limts are taken from the Georgia Hazardous Sites Response Act (HRSA) risk-based limits for non-residential surficial (<1ft) soils.

Table 2
Summary of TCLP Metals Results
Taylor County Landfill, Permit No 113-003D (SL)
Mauk Georgia

Constituent	TCLP Limits	Sample Location	Date	Result	Units	Qualifier	MDL	QL
Arsenic	5	Borrow Area	11/17/2020	< 0.500	mg/L		0.380	0.500
	5	Crushed Concrete	11/17/2020	< 0.500	mg/L		0.380	0.500
	5	JEA Ash	7/15/2020	< 0.500	mg/L		0.380	0.500
	5	POND 1	11/17/2020	< 0.500	mg/L		0.380	0.500
	5	Road By Sumps	11/17/2020	< 0.500	mg/L		0.380	0.500
Barium	100	Borrow Area	11/17/2020	0.104	mg/L	J	0.0550	0.500
	100	Crushed Concrete	11/17/2020	1.04	mg/L		0.0550	0.500
	100	JEA Ash	7/15/2020	0.744	mg/L		0.0550	0.500
	100	POND 1	11/17/2020	0.127	mg/L	J	0.0550	0.500
	100	Road By Sumps	11/17/2020	0.160	mg/L	J	0.0550	0.500
Cadmium	1	Borrow Area	11/17/2020	< 0.0500	mg/L		0.0180	0.0500
	1	Crushed Concrete	11/17/2020	< 0.0500	mg/L		0.0180	0.0500
	1	JEA Ash	7/15/2020	< 0.0500	mg/L		0.0180	0.0500
	1	POND 1	11/17/2020	< 0.0500	mg/L		0.0180	0.0500
	1	Road By Sumps	11/17/2020	< 0.0500	mg/L		0.0180	0.0500
Chromium	5	Borrow Area	11/17/2020	< 0.500	mg/L		0.0700	0.500
	5	Crushed Concrete	11/17/2020	0.151	mg/L	J	0.0700	0.500
	5	JEA Ash	7/15/2020	0.0966	mg/L	J	0.0700	0.500
	5	POND 1	11/17/2020	< 0.500	mg/L		0.0700	0.500
	5	Road By Sumps	11/17/2020	< 0.500	mg/L		0.0700	0.500
Lead	5	Borrow Area	11/17/2020	< 0.500	mg/L		0.155	0.500
	5	Crushed Concrete	11/17/2020	< 0.500	mg/L		0.155	0.500
	5	JEA Ash	7/15/2020	< 0.500	mg/L		0.155	0.500
	5	POND 1	11/17/2020	< 0.500	mg/L		0.155	0.500
	5	Road By Sumps	11/17/2020	< 0.500	mg/L		0.155	0.500
Mercury	0.2	Borrow Area	11/17/2020	< 0.00400	mg/L		0.00300	0.00400
	0.2	Crushed Concrete	11/17/2020	< 0.00400	mg/L		0.00300	0.00400
	0.2	JEA Ash	7/15/2020	< 0.00400	mg/L		0.00300	0.00400
	0.2	POND 1	11/17/2020	< 0.00400	mg/L		0.00300	0.00400
	0.2	Road By Sumps	11/17/2020	< 0.00400	mg/L		0.00300	0.00400
Selenium	1	Borrow Area	11/17/2020	< 0.500	mg/L		0.310	0.500
	1	Crushed Concrete	11/17/2020	< 0.500	mg/L		0.310	0.500
	1	JEA Ash	7/15/2020	< 0.500	mg/L		0.310	0.500
	1	POND 1	11/17/2020	< 0.500	mg/L		0.310	0.500
	1	Road By Sumps	11/17/2020	< 0.500	mg/L		0.310	0.500
Silver	5	Borrow Area	11/17/2020	< 0.500	mg/L		0.0950	0.500
	5	Crushed Concrete	11/17/2020	< 0.500	mg/L		0.0950	0.500
	5	JEA Ash	7/15/2020	< 0.500	mg/L		0.0950	0.500
	5	POND 1	11/17/2020	< 0.500	mg/L		0.0950	0.500
	5	Road By Sumps	11/17/2020	< 0.500	mg/L		0.0950	0.500

Notes: 1) Units are in milligrams per liter (mg/L).
2) Toxicity Characteristic Leaching Procedure (TCLP) limits are from 40 CFR Part 261.

Table 3
Summary of USGS Database Metals Results
Taylor County, Georgia

ARSENIC (As)

Sample #	NURE ID	Lab ID	Sample Date	Type	Datum	Latitude	Longitude	As (Max) Concentration (ppm)	Method
1	5278534	C-110236	19760607	Sediment	NAD27	32.5837	-84.1307	12	ICP40
2	5278523	C-116706	19760605	Sediment	NAD27	32.6144	-84.349	25	ICP40
3	5278541	C-116710	19760605	Sediment	NAD27	32.4619	-84.2332	1.0	INAA
4	5278528	C-116713	19760607	Sediment	NAD27	32.6546	-84.2081	0.7	INAA
5	5278532	C-148756	19760607	Sediment	NAD27	32.6328	-84.123	11	ICP40
6	5278560	C-148910	19760604	Sediment	NAD27	32.405	-84.2322	2.0	AA
7	5278546	C-149045	19760604	Sediment	NAD27	32.3944	-84.3173	5.7	AA
8	5278557	C-149376	19760605	Sediment	NAD27	32.5562	-84.1487	3.6	AA
9	5278526	C-149399	19760605	Sediment	NAD27	32.6182	-84.2848	1.7	AA
10	5278513	C-149464	19760605	Sediment	NAD27	32.7291	-84.2958	7.1	AA
							Average	**7.0**	

CADMIUM (Cd)

Sample #	NURE ID	Lab ID	Sample Date	Type	Datum	Latitude	Longitude	Cd (Max) Concentration (ppm)	Method
1	5278534	C-110236	19760607	Sediment	NAD27	32.5837	-84.1307	ND	ICP40
2	5278523	C-116706	19760605	Sediment	NAD27	32.6144	-84.349	ND	ICP40
3	5278541	C-116710	19760605	Sediment	NAD27	32.4619	-84.2332	ND	INAA
4	5278528	C-116713	19760607	Sediment	NAD27	32.6546	-84.2081	ND	INAA
5	5278532	C-148756	19760607	Sediment	NAD27	32.6328	-84.123	ND	ICP40
6	5278560	C-148910	19760604	Sediment	NAD27	32.405	-84.2322	ND	AA
7	5278546	C-149045	19760604	Sediment	NAD27	32.3944	-84.3173	ND	AA
8	5278557	C-149376	19760605	Sediment	NAD27	32.5562	-84.1487	ND	AA
9	5278526	C-149399	19760605	Sediment	NAD27	32.6182	-84.2848	ND	AA
10	5278513	C-149464	19760605	Sediment	NAD27	32.7291	-84.2958	ND	AA
							Average	**ND**	

CHROMIUM (Cr)

Sample #	NURE ID	Lab ID	Sample Date	Type	Datum	Latitude	Longitude	Cr (Max) Concentration (ppm)	Method
1	5278534	C-110236	19760607	Sediment	NAD27	32.5837	-84.1307	35	INAA
2	5278523	C-116706	19760605	Sediment	NAD27	32.6144	-84.349	29	INAA
3	5278541	C-116710	19760605	Sediment	NAD27	32.4619	-84.2332	19	INAA
4	5278528	C-116713	19760607	Sediment	NAD27	32.6546	-84.2081	11	INAA
5	5278532	C-148756	19760607	Sediment	NAD27	32.6328	-84.123	66	ICP40
6	5278560	C-148910	19760604	Sediment	NAD27	32.405	-84.2322	18	ICP40
7	5278546	C-149045	19760604	Sediment	NAD27	32.3944	-84.3173	51	ICP40
8	5278557	C-149376	19760605	Sediment	NAD27	32.5562	-84.1487	25	ICP40
9	5278526	C-149399	19760605	Sediment	NAD27	32.6182	-84.2848	32	ICP40
10	5278513	C-149464	19760605	Sediment	NAD27	32.7291	-84.2958	28	ICP40
							Average	**31**	

Table 3
Summary of USGS Database Metals Results
Taylor County, Georgia

LEAD (Pb)

Sample #	NURE ID	Lab ID	Sample Date	Type	Datum	Latitude	Longitude	Pb (Max) Concentration (ppm)	Method
1	5278534	C-110236	19760607	Sediment	NAD27	32.5837	-84.1307	17	ICP40
2	5278523	C-116706	19760605	Sediment	NAD27	32.6144	-84.349	40	ICP40
3	5278541	C-116710	19760605	Sediment	NAD27	32.4619	-84.2332	14	ICP40
4	5278528	C-116713	19760607	Sediment	NAD27	32.6546	-84.2081	18	ICP40
5	5278532	C-148756	19760607	Sediment	NAD27	32.6328	-84.123	19	ICP40
6	5278560	C-148910	19760604	Sediment	NAD27	32.405	-84.2322	5	ICP40
7	5278546	C-149045	19760604	Sediment	NAD27	32.3944	-84.3173	23	ICP40
8	5278557	C-149376	19760605	Sediment	NAD27	32.5562	-84.1487	18	ICP40
9	5278526	C-149399	19760605	Sediment	NAD27	32.6182	-84.2848	18	ICP40
10	5278513	C-149464	19760605	Sediment	NAD27	32.7291	-84.2958	8	ICP40
							Average	**18**	

Nickel (Ni)

Sample #	NURE ID	Lab ID	Sample Date	Type	Datum	Latitude	Longitude	Ni (Max) Concentration (ppm)	Method
1	5278534	C-110236	19760607	Sediment	NAD27	32.5837	-84.1307	6	ICP40
2	5278523	C-116706	19760605	Sediment	NAD27	32.6144	-84.349	4	ICP40
3	5278541	C-116710	19760605	Sediment	NAD27	32.4619	-84.2332	ND	ICP40
4	5278528	C-116713	19760607	Sediment	NAD27	32.6546	-84.2081	8.2	INAA
5	5278532	C-148756	19760607	Sediment	NAD27	32.6328	-84.123	6	ICP40
6	5278560	C-148910	19760604	Sediment	NAD27	32.405	-84.2322	ND	ICP40
7	5278546	C-149045	19760604	Sediment	NAD27	32.3944	-84.3173	10	ICP40
8	5278557	C-149376	19760605	Sediment	NAD27	32.5562	-84.1487	4	ICP40
9	5278526	C-149399	19760605	Sediment	NAD27	32.6182	-84.2848	ND	ICP40
10	5278513	C-149464	19760605	Sediment	NAD27	32.7291	-84.2958	ND	ICP40
							Average	**6.4**	

Vandadium (V)

Sample #	NURE ID	Lab ID	Sample Date	Type	Datum	Latitude	Longitude	V (Max) Concentration (ppm)	Method
1	5278534	C-110236	19760607	Sediment	NAD27	32.5837	-84.1307	32	ICP40
2	5278523	C-116706	19760605	Sediment	NAD27	32.6144	-84.349	60	NURE
3	5278541	C-116710	19760605	Sediment	NAD27	32.4619	-84.2332	20	NURE
4	5278528	C-116713	19760607	Sediment	NAD27	32.6546	-84.2081	21	ICP40
5	5278532	C-148756	19760607	Sediment	NAD27	32.6328	-84.123	60	NURE
6	5278560	C-148910	19760604	Sediment	NAD27	32.405	-84.2322	20	NURE
7	5278546	C-149045	19760604	Sediment	NAD27	32.3944	-84.3173	80	NURE
8	5278557	C-149376	19760605	Sediment	NAD27	32.5562	-84.1487	44	ICP40
9	5278526	C-149399	19760605	Sediment	NAD27	32.6182	-84.2848	22	ICP40
10	5278513	C-149464	19760605	Sediment	NAD27	32.7291	-84.2958	90	NURE
							Average	**44.9**	

Note: Source of metals data is the United States Geological Survey National Geochemical Surey Database, ppm = parts per million

ENCO Laboratories
Accurate. Timely. Responsive. Innovative.

102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

Friday, July 24, 2020
GFL Environmental - Taylor Cty Landfill (WA058)
Attn: Rachel Kirkman
5B Oak Branch Drive
Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 20137511.100, Project Name/Desc: Taylor Co Ash Characterization
ENCO Workorder(s): CD10175

Dear Rachel Kirkman,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, July 17, 2020.

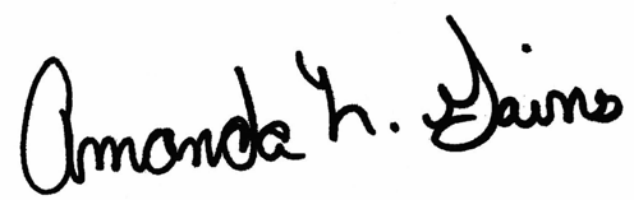
Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative if applicable. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Amanda L. Gaines

Project Manager

Enclosure(s)

www.encolabs.com

PROJECT NARRATIVE

Date: 7/24/2020
Client: GFL Environmental - Taylor Cty Landfill (WA058)
Project: Taylor Co Ash Characterization
Lab ID: CD10175

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

No Comments

Other Comments

All samples received under this work order arrived in acceptable condition. The samples were not checked for residual chlorine, as it is not required.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Amanda Gaines
Project Manager

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: JEA Ash **Lab ID: CD10175-01** **Sampled: 07/15/20 17:03** **Received: 07/17/20 13:53**

Parameter	Preparation	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010D	EPA 3010A	01/11/21	01/18/21	07/22/20	16:41	07/23/20 11:37
EPA 7470A	EPA 7470A	08/12/20		07/22/20	10:40	07/22/20 15:36

SAMPLE DETECTION SUMMARY

Client ID: JEA Ash **Lab ID:** CD10175-01

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - TCLP	0.744		0.0550	0.500	mg/L	EPA 6010D	
Chromium - TCLP	0.0966	J	0.0700	0.500	mg/L	EPA 6010D	

ANALYTICAL RESULTS

Description: JEA Ash
Matrix: Solid
Project: Taylor Co Ash Characterization

Lab Sample ID: CD10175-01
Sampled: 07/15/20 17:03
Sampled By: Travis Martinez

Received: 07/17/20 13:53
Work Order: CD10175
% Solids:

TCLP Metals by 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]	0.380	U	mg/L	1	0.380	0.500	0G22046	EPA 6010D	07/23/20 11:37	JDH	
Barium [7440-39-3]	**0.744**		mg/L	1	0.0550	0.500	0G22046	EPA 6010D	07/23/20 11:37	JDH	
Cadmium [7440-43-9]	0.0180	U	mg/L	1	0.0180	0.0500	0G22046	EPA 6010D	07/23/20 11:37	JDH	
Chromium [7440-47-3]	**0.0966**	J	mg/L	1	0.0700	0.500	0G22046	EPA 6010D	07/23/20 11:37	JDH	
Lead [7439-92-1]	0.155	U	mg/L	1	0.155	0.500	0G22046	EPA 6010D	07/23/20 11:37	JDH	
Mercury [7439-97-6]^	0.00300	U	mg/L	1	0.00300	0.00400	0G22025	EPA 7470A	07/22/20 15:36	KAH	
Selenium [7782-49-2]	0.310	U	mg/L	1	0.310	0.500	0G22046	EPA 6010D	07/23/20 11:37	JDH	
Silver [7440-22-4]	0.0950	U	mg/L	1	0.0950	0.500	0G22046	EPA 6010D	07/23/20 11:37	JDH	

QUALITY CONTROL DATA

TCLP Metals by 6000/7000 Series Methods - Quality Control

Batch 0G22025 - EPA 7470A

Blank (0G22025-BLK1) Prepared: 07/22/2020 10:40 Analyzed: 07/22/2020 15:30

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00300	U	0.00400	mg/L							

LCS (0G22025-BS1) Prepared: 07/22/2020 10:40 Analyzed: 07/22/2020 15:33

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00533		0.00020	mg/L	0.00500		107	80-120			

Matrix Spike (0G22025-MS1) Prepared: 07/22/2020 10:40 Analyzed: 07/22/2020 15:38

Source: CD10175-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.101		0.00420	mg/L	0.100	0.00315 U	101	75-125			

Matrix Spike Dup (0G22025-MSD1) Prepared: 07/22/2020 10:40 Analyzed: 07/22/2020 15:42

Source: CD10175-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.105		0.00420	mg/L	0.100	0.00315 U	105	75-125	3	25	

Post Spike (0G22025-PS1) Prepared: 07/22/2020 10:40 Analyzed: 07/22/2020 15:44

Source: CD10175-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00570		0.00020	mg/L	0.00500	0.000025	114	75-125			

Batch 0G22046 - EPA 3010A

Blank (0G22046-BLK1) Prepared: 07/22/2020 16:41 Analyzed: 07/23/2020 11:34

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.380	U	0.500	mg/L							
Barium	0.0550	U	0.500	mg/L							
Cadmium	0.0180	U	0.0500	mg/L							
Chromium	0.0700	U	0.500	mg/L							
Lead	0.155	U	0.500	mg/L							
Selenium	0.310	U	0.500	mg/L							
Silver	0.0950	U	0.500	mg/L							

LCS (0G22046-BS1) Prepared: 07/22/2020 16:41 Analyzed: 07/23/2020 11:40

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.200		0.0100	mg/L	0.200		100	80-120			
Barium	0.211		0.0100	mg/L	0.200		106	80-120			
Cadmium	0.0210		0.00100	mg/L	0.0200		105	80-120			
Chromium	0.205		0.0100	mg/L	0.200		102	80-120			
Lead	0.205		0.0100	mg/L	0.200		103	80-120			
Selenium	0.202		0.0100	mg/L	0.200		101	80-120			
Silver	0.203		0.0100	mg/L	0.200		101	80-120			

QUALITY CONTROL DATA

TCLP Metals by 6000/7000 Series Methods - Quality Control

Batch 0G22046 - EPA 3010A - Continued

Matrix Spike (0G22046-MS1) Prepared: 07/22/2020 16:41 Analyzed: 07/23/2020 11:42

Source: CD10175-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	10.4		0.500	mg/L	10.0	0.380 U	104	75-125			
Barium	11.5		0.500	mg/L	10.0	0.744	107	75-125			
Cadmium	1.05		0.0500	mg/L	1.00	0.0180 U	105	75-125			
Chromium	10.2		0.500	mg/L	10.0	0.0966	101	75-125			
Lead	10.3		0.500	mg/L	10.0	0.155 U	103	75-125			
Selenium	9.84		0.500	mg/L	10.0	0.310 U	98	75-125			
Silver	10.3		0.500	mg/L	10.0	0.0950 U	103	75-125			

Matrix Spike Dup (0G22046-MSD1) Prepared: 07/22/2020 16:41 Analyzed: 07/23/2020 11:49

Source: CD10175-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	9.75		0.500	mg/L	10.0	0.380 U	98	75-125	6	20	
Barium	11.2		0.500	mg/L	10.0	0.744	105	75-125	2	20	
Cadmium	1.02		0.0500	mg/L	1.00	0.0180 U	102	75-125	3	20	
Chromium	10.1		0.500	mg/L	10.0	0.0966	100	75-125	1	20	
Lead	10.0		0.500	mg/L	10.0	0.155 U	100	75-125	3	20	
Selenium	9.33		0.500	mg/L	10.0	0.310 U	93	75-125	5	20	
Silver	10.1		0.500	mg/L	10.0	0.0950 U	101	75-125	1	20	

Post Spike (0G22046-PS1) Prepared: 07/22/2020 16:41 Analyzed: 07/23/2020 11:52

Source: CD10175-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.203		0.0100	mg/L	0.200	-0.00510	102	80-120			
Barium	0.231		0.0100	mg/L	0.200	0.0149	108	80-120			
Cadmium	0.0211		0.00100	mg/L	0.0200	-0.000405	105	80-120			
Chromium	0.211		0.0100	mg/L	0.200	0.00193	104	80-120			
Lead	0.209		0.0100	mg/L	0.200	0.000520	104	80-120			
Selenium	0.196		0.0100	mg/L	0.200	-0.00936	98	80-120			
Silver	0.207		0.0100	mg/L	0.200	0.000128	103	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
PQL	PQL: Practical Quantitation Limit. The PQL presented is the laboratory MRL.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence (85% or greater confidence) to make a "tentative identification".
P	Greater than 25% concentration difference was observed between the primary and secondary GC column. The lower concentration is reported.
[CALC]	Calculated analyte - MDL/MRL reported to the highest reporting limit of the component analyses.

10775 Central Port Dr.
Orlando, FL 32824
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4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Client Name	Project Number
GFL Environmental - Taylor Cty Landfill (WA058)	20137511.100
Address	**Project Name/Desc**
5B Oak Branch Drive	Taylor Co Ash Characterization
City/ST/Zip	**PO # / Billing Info**
Greensboro, NC 27407	2019:
Tel / **Fax**	**Reporting Contact**
(336) 852-4903	Rachel Kirkman
Sampler(s) Name, Affiliation (Print)	**Billing Contact**
Travis Martinez	Laura Young
Sampler(s) Signature	**Site Location / Time Zone**
	Mauk, GA / EST

Requested Analyses

1311 TCLP EXT Metals, TCLP Ag, TCLP As, TCLP Ba, TCLP Cd, TCLP Cr, TCLP Pb, TCLP Se	TCLP Hg

Preservation (See Codes) (Combine as necessary)

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

X Standard

___ Expedited

Due ___/___/___

Lab Workorder

CD10175

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	TCLP Hg	1311 TCLP EXT Metals, TCLP Ag, TCLP As, TCLP Ba, TCLP Cd, TCLP Cr, TCLP Pb, TCLP Se	Sample Comments
	JEA Ash	7-15-2020	1703	G	SOLID	2	X	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
RY	10/23		7/17/2020/1230	TJP	7/17/20 12:30
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
level 2 data report				TSP	7/17/20 1:53
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt			Condition Upon Receipt
		C-3		2.7C	✓ Acceptable ___ Unacceptable

Matrix : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

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102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

Wednesday, December 9, 2020
GFL Environmental - Taylor Cty Landfill (WA058)
Attn: Rachel Kirkman
5B Oak Branch Drive
Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 20137511.100, Project Name/Desc: Taylor Co Ash Characterization
ENCO Workorder(s): CD10175

Dear Rachel Kirkman,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Friday, July 17, 2020.

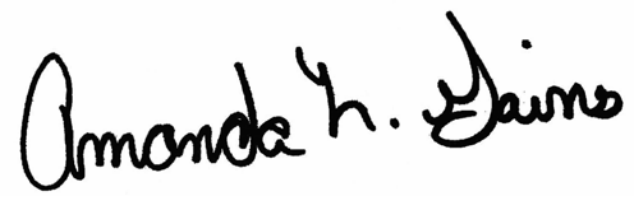
Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative if applicable. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Amanda L. Gaines

Project Manager

Enclosure(s)

www.encolabs.com

PROJECT NARRATIVE

Date: December 9, 2020
Client: GFL Environmental - Taylor Cty Landfill (WA058)
Project: Taylor Co Ash Characterization
Lab ID: CD10175

Overview

This report is an amendment to the original report dated July 24, 2020 for this work order. This report was revised to report the analysis of Total Metals under separate cover.

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

The Method Blank (MB) had a positive result for Cadmium; however the concentration is less than ten percent of the associated sample result, which has minimal impact on the data. The MB had a positive result for Lead; however this element was not detected in the associated sample. The MB had a positive result for Cadmium and Lead. Detections of this analyte should be considered to have a possible high bias if the concentration in the sample is not greater than ten times that of the detection in the MB.

Quality Control Remarks

The sample was received outside of the method specified hold time for the Mercury analysis.

Other Comments

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Amanda Gaines
Project Manager

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: JEA Ash **Lab ID: CD10175-01** **Sampled: 07/15/20 17:03** **Received: 07/17/20 13:53**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010D	EPA 3050B	01/11/21	12/04/20 11:30	12/07/20 12:07
EPA 7471B	EPA 7471B	08/12/20	12/04/20 15:17	12/07/20 09:31

Client ID: JEA Ash **Lab ID: CD10175-01RE1** **Sampled: 07/15/20 17:03** **Received: 07/17/20 13:53**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010D	EPA 3050B	01/11/21	12/04/20 11:30	12/07/20 15:03
EPA 6010D	EPA 3050B	01/11/21	12/04/20 11:30	12/08/20 10:41

SAMPLE DETECTION SUMMARY

Client ID: JEA Ash **Lab ID:** CD10175-01

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Arsenic - Total	13.0		0.192	1.00	mg/kg dry	EPA 6010D	
Cadmium - Total	0.589		0.0620	0.100	mg/kg dry	EPA 6010D	QB-01
Chromium - Total	6.56		0.0840	0.500	mg/kg dry	EPA 6010D	

Client ID: JEA Ash **Lab ID:** CD10175-01RE1

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	14.2		0.0930	1.00	mg/kg dry	EPA 6010D	

ANALYTICAL RESULTS

Description: JEA Ash	**Lab Sample ID:** CD10175-01	**Received:** 07/17/20 13:53
Matrix: Solid	**Sampled:** 07/15/20 17:03	**Work Order:** CD10175
Project: Taylor Co Ash Characterization	**Sampled By:** Travis Martinez	**% Solids:** 100.32

Metals by EPA 6000/7000 Series Methods

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	**13.0**		mg/kg dry	1	0.192	1.00	0L04017	EPA 6010D	12/07/20 12:07	JSS	
Barium [7440-39-3]^	**14.2**		mg/kg dry	1	0.0930	1.00	0L04017	EPA 6010D	12/07/20 15:03	JSS	
Cadmium [7440-43-9]^	**0.589**		mg/kg dry	1	0.0620	0.100	0L04017	EPA 6010D	12/07/20 12:07	JSS	QB-01
Chromium [7440-47-3]^	**6.56**		mg/kg dry	1	0.0840	0.500	0L04017	EPA 6010D	12/07/20 12:07	JSS	
Lead [7439-92-1]^	0.318	U	mg/kg dry	1	0.318	0.500	0L04017	EPA 6010D	12/08/20 10:41	JSS	QB-02
Mercury [7439-97-6]^	0.00390	U	mg/kg dry	1	0.00390	0.0100	0L04013	EPA 7471B	12/07/20 09:31	SSE	Q-02
Selenium [7782-49-2]^	0.411	U	mg/kg dry	1	0.411	2.00	0L04017	EPA 6010D	12/07/20 12:07	JSS	
Silver [7440-22-4]^	0.135	U	mg/kg dry	1	0.135	0.500	0L04017	EPA 6010D	12/07/20 12:07	JSS	

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0L04013 - EPA 7471B

Blank (0L04013-BLK1) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:15

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00390	U	0.0100	mg/kg wet							

Blank (0L04013-BLK2) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:54

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00390	U	0.0100	mg/kg wet							

LCS (0L04013-BS1) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:27

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.518		0.00882	mg/kg wet	0.529		98	80-120			

LCS (0L04013-BS2) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:57

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.501		0.00882	mg/kg wet	0.529		95	80-120			

Matrix Spike (0L04013-MS1) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:34

Source: CD10175-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.625		0.0100	mg/kg dry	0.619	0.00390 U	101	80-120			

Matrix Spike Dup (0L04013-MSD1) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:37

Source: CD10175-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.625		0.0100	mg/kg dry	0.619	0.00390 U	101	80-120	0.07	20	

Batch 0L04017 - EPA 3050B

Blank (0L04017-BLK1) Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 11:44

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.192	U	1.00	mg/kg wet							
Barium	0.0930	U	1.00	mg/kg wet							
Cadmium	0.0620	U	0.100	mg/kg wet							QB-01, QB-02
Chromium	0.0840	U	0.500	mg/kg wet							
Lead	**0.320**	**J**	0.500	mg/kg wet							J-01, QB-01, Q
Selenium	0.411	U	2.00	mg/kg wet							
Silver	0.135	U	0.500	mg/kg wet							

LCS (0L04017-BS1) Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 11:56

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	26.1		1.00	mg/kg wet	25.5		102	80-120			
Barium	25.6		1.00	mg/kg wet	25.6		100	80-120			
Cadmium	2.50		0.100	mg/kg wet	2.54		98	80-120			
Chromium	25.4		0.500	mg/kg wet	25.5		100	80-120			

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0L04017 - EPA 3050B - Continued

LCS (0L04017-BS1) Continued Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 11:56

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	24.6	B	0.500	mg/kg wet	25.5		97	80-120			
Selenium	25.2		2.00	mg/kg wet	25.5		99	80-120			
Silver	4.34		0.500	mg/kg wet	4.38		99	80-120			

Matrix Spike (0L04017-MS1) Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 12:01

Source: AD08093-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	26.3		1.05	mg/kg dry	26.0	0.768	99	75-125			
Barium	28.3		1.05	mg/kg dry	26.0	1.34	104	75-125			
Cadmium	2.56		0.105	mg/kg dry	2.58	0.0650 U	99	75-125			
Chromium	28.1		0.524	mg/kg dry	26.0	1.95	101	75-125			
Lead	26.5	B	0.524	mg/kg dry	26.0	0.934	98	75-125			
Selenium	24.3		2.10	mg/kg dry	26.0	0.431 U	94	75-125			
Silver	4.36		0.524	mg/kg dry	4.46	0.142 U	98	75-125			

Matrix Spike Dup (0L04017-MSD1) Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 12:04

Source: AD08093-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	25.7		1.05	mg/kg dry	25.4	0.768	98	75-125	3	20	
Barium	27.6		1.05	mg/kg dry	25.5	1.34	103	75-125	3	20	
Cadmium	2.49		0.105	mg/kg dry	2.53	0.0650 U	98	75-125	3	20	
Chromium	27.5		0.524	mg/kg dry	25.4	1.95	100	75-125	2	20	
Lead	25.8	B	0.524	mg/kg dry	25.4	0.934	98	75-125	3	20	
Selenium	23.9		2.10	mg/kg dry	25.4	0.431 U	94	75-125	2	20	
Silver	4.22		0.524	mg/kg dry	4.37	0.142 U	97	75-125	3	20	

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
PQL	PQL: Practical Quantitation Limit. The PQL presented is the laboratory MRL.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence (85% or greater confidence) to make a "tentative identification".
P	Greater than 25% concentration difference was observed between the primary and secondary GC column. The lower concentration is reported.
[CALC]	Calculated analyte - MDL/MRL reported to the highest reporting limit of the component analyses.
J-01	Result may be biased high due to positive results in the associated method blank at a concentration above the MDL and/or greater than one-half the MRL.
Q-02	Sample received outside of method - specified holding time.
QB-01	The method blank had a positive result for the analyte; however, the concentration in the method blank is less than 10% of the sample result. There is minimal impact to the data.
QB-02	The method blank contains analyte at a concentration above the MDL and/or greater than one-half the MRL. The analyte was not detected in the sample.

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Client Name	Project Number
GFL Environmental - Taylor Cty Landfill (WA058)	20137511.100
Address	**Project Name/Desc**
5B Oak Branch Drive	Taylor Co Ash Characterization
City/ST/Zip	**PO # / Billing Info**
Greensboro, NC 27407	2019:
Tel / **Fax**	**Reporting Contact**
(336) 852-4903	Rachel Kirkman
Sampler(s) Name, Affiliation (Print)	**Billing Contact**
Travis Martinez	Laura Young
Sampler(s) Signature	**Site Location / Time Zone**
	Mauk, GA / EST

Requested Analyses

1311 TCLP EXT Metals, TCLP Ag, TCLP As, TCLP Ba, TCLP Cd, TCLP Cr, TCLP Pb, TCLP Se	TCLP Hg

Preservation (See Codes) (Combine as necessary)

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

X Standard

___ Expedited

Due ___/___/___

Lab Workorder

CD10175

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	TCLP Hg	1311 TCLP EXT Metals, TCLP Ag, TCLP As, TCLP Ba, TCLP Cd, TCLP Cr, TCLP Pb, TCLP Se	Sample Comments
	JEA Ash	7-15-2020	1703	G	SOLID	2	X	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time	Received By	Date/Time
RY	10/23		7/17/2020/1230	TJP	7/17/20 12:30
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
level 2 data report				TSP	7/17/20 1:53
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt			Condition Upon Receipt
		C-3		2.7C	✓ Acceptable ___ Unacceptable

Matrix : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

WORK ORDER

Printed: 7/20/2020 10:48:00AM

CD10175

ENCO Cary

Sample Receipt Conditions

Client:	**GFL Environmental - Taylor Cty Landfill (WA058)**	**Lab Project Mgr:**	**Amanda L. Gaines**
Project:	**Taylor Co Ash Characterization**	**Project Number:**	**20137511.100**
PO #:	**2019:**		

Report To:

GFL Environmental - Taylor Cty Landfill (WA058)
Rachel Kirkman
5B Oak Branch Drive
Greensboro, NC 27407
Phone: (336) 852-4903
Fax:

Invoice To:

GFL Environmental - Taylor Cty Landfill (WA058)
Laura Young
208 Southern States Road
Mauk, GA 31058
Phone :(478) 862-2504
Fax:

Received By:	Timothy J. Parker	Date Received:	17-Jul-20 13:53
Logged In By:	John C King	Date Logged In:	17-Jul-20 14:42

Work Order Comments:

C-3 received at 2.7°C

Containers Intact	**Y**	Containers Properly Preserved	**Y**	Proper Containers Received	**Y**	All Samples in PreLog Received	**Y**	COC/Labels Agree	**Y**
Custody Seals Intact	**Y**	Volatile Containers Preserved	**N**	Volatile Containers Headspace Free	**N**	Aqueous Samples Checked for Residual Cl	**N**	Received On Ice	**Y**
Temperature Corrected	**Y**								

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102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

Thursday, December 3, 2020
GFL Environmental - Taylor Cty Landfill (WA058)
Attn: Rachel Kirkman
5B Oak Branch Drive
Greensboro, NC 27407

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: Taylor Co TCLP
ENCO Workorder(s): CD19328

Dear Rachel Kirkman,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Thursday, November 19, 2020.

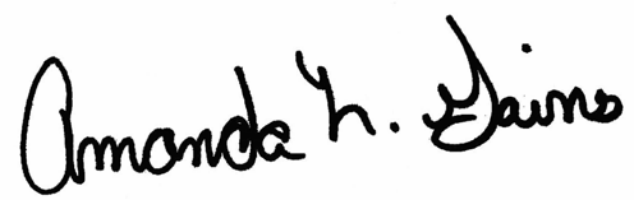
Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative if applicable. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Amanda L. Gaines

Project Manager

Enclosure(s)

www.encolabs.com

PROJECT NARRATIVE

Date: December 3, 2020
Client: GFL Environmental - Taylor Cty Landfill (WA058)
Project: Taylor Co TCLP
Lab ID: CD19328

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

No Comments

Other Comments

All samples received under this work order arrived in acceptable conditions. The samples were not checked for chlorine, as it is not required. No aqueous volatile samples were received, negating the need to check for preservation or headspace.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Amanda Gaines
Project Manager

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: POND 1 | **Lab ID: CD19328-01** | **Sampled: 11/17/20 08:15** | **Received: 11/19/20 13:20**

Parameter	Preparation	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010D	EPA 3050B	05/16/21		11/23/20	08:04	11/24/20 13:01
EPA 6010D	EPA 3010A	05/16/21	05/29/21	11/30/20	15:45	12/01/20 10:51
EPA 7470A	EPA 7470A	12/15/20		11/30/20	09:09	12/02/20 11:19
EPA 7471B	EPA 7471B	12/15/20		12/01/20	14:42	12/03/20 13:45

Client ID: Crushed Concrete | **Lab ID: CD19328-02** | **Sampled: 11/17/20 08:30** | **Received: 11/19/20 13:20**

Parameter	Preparation	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010D	EPA 3050B	05/16/21		11/23/20	08:04	11/24/20 13:19
EPA 6010D	EPA 3010A	05/16/21	05/29/21	11/30/20	15:45	12/01/20 11:13
EPA 7470A	EPA 7470A	12/15/20		11/30/20	09:09	12/02/20 11:21
EPA 7471B	EPA 7471B	12/15/20		12/01/20	14:42	12/03/20 13:48

Client ID: Road By Sumps | **Lab ID: CD19328-03** | **Sampled: 11/17/20 09:00** | **Received: 11/19/20 13:20**

Parameter	Preparation	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010D	EPA 3050B	05/16/21		11/23/20	08:04	11/24/20 13:22
EPA 6010D	EPA 3010A	05/16/21	05/29/21	11/30/20	15:45	12/01/20 11:16
EPA 7470A	EPA 7470A	12/15/20		11/30/20	09:09	12/02/20 11:23
EPA 7471B	EPA 7471B	12/15/20		12/01/20	14:42	12/03/20 13:50

Client ID: Borrow Area | **Lab ID: CD19328-04** | **Sampled: 11/17/20 14:30** | **Received: 11/19/20 13:20**

Parameter	Preparation	Hold Date/Time(s)		Prep Date/Time(s)		Analysis Date/Time(s)
EPA 6010D	EPA 3050B	05/16/21		11/23/20	08:04	11/24/20 13:24
EPA 6010D	EPA 3010A	05/16/21	05/29/21	11/30/20	15:45	12/01/20 11:18
EPA 7470A	EPA 7470A	12/15/20		11/30/20	09:09	12/02/20 11:26
EPA 7471B	EPA 7471B	12/15/20		12/01/20	14:42	12/03/20 13:52

SAMPLE DETECTION SUMMARY

Client ID: POND 1 **Lab ID:** CD19328-01

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	1.57		0.109	0.543	mg/kg dry	EPA 6010D	
Barium - TCLP	0.127	J	0.0550	0.500	mg/L	EPA 6010D	
Cadmium - Total	0.0322	J	0.0104	0.0543	mg/kg dry	EPA 6010D	
Chromium - Total	8.60		0.109	0.543	mg/kg dry	EPA 6010D	
Lead - Total	2.02		0.130	0.543	mg/kg dry	EPA 6010D	

Client ID: Crushed Concrete **Lab ID:** CD19328-02

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	192		0.111	0.555	mg/kg dry	EPA 6010D	
Barium - TCLP	1.04		0.0550	0.500	mg/L	EPA 6010D	
Chromium - Total	13.5		0.111	0.555	mg/kg dry	EPA 6010D	
Chromium - TCLP	0.151	J	0.0700	0.500	mg/L	EPA 6010D	
Lead - Total	3.23		0.133	0.555	mg/kg dry	EPA 6010D	

Client ID: Road By Sumps **Lab ID:** CD19328-03

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Arsenic - Total	0.904		0.330	0.516	mg/kg dry	EPA 6010D	
Barium - Total	7.20		0.103	0.516	mg/kg dry	EPA 6010D	
Barium - TCLP	0.160	J	0.0550	0.500	mg/L	EPA 6010D	
Cadmium - Total	0.146		0.00990	0.0516	mg/kg dry	EPA 6010D	
Chromium - Total	16.8		0.103	0.516	mg/kg dry	EPA 6010D	
Lead - Total	4.89		0.124	0.516	mg/kg dry	EPA 6010D	

Client ID: Borrow Area **Lab ID:** CD19328-04

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	6.35		0.110	0.550	mg/kg dry	EPA 6010D	
Barium - TCLP	0.104	J	0.0550	0.500	mg/L	EPA 6010D	
Chromium - Total	13.4		0.110	0.550	mg/kg dry	EPA 6010D	
Lead - Total	2.84		0.132	0.550	mg/kg dry	EPA 6010D	

ANALYTICAL RESULTS

Description: POND 1 | **Lab Sample ID:** CD19328-01 | **Received:** 11/19/20 13:20
Matrix: Soil | **Sampled:** 11/17/20 08:15 | **Work Order:** CD19328
Project: Taylor Co TCLP | **Sampled By:** Nicolas Tejeda | **% Solids:** 92.09

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.347	U	mg/kg dry	1	0.347	0.543	0K23008	EPA 6010D	11/24/20 13:01	JDH	
Barium [7440-39-3]^	**1.57**		mg/kg dry	1	0.109	0.543	0K23008	EPA 6010D	11/24/20 13:01	JDH	
Cadmium [7440-43-9]^	**0.0322**	J	mg/kg dry	1	0.0104	0.0543	0K23008	EPA 6010D	11/24/20 13:01	JDH	
Chromium [7440-47-3]^	**8.60**		mg/kg dry	1	0.109	0.543	0K23008	EPA 6010D	11/24/20 13:01	JDH	
Lead [7439-92-1]^	**2.02**		mg/kg dry	1	0.130	0.543	0K23008	EPA 6010D	11/24/20 13:01	JDH	
Mercury [7439-97-6]^	0.0500	U	mg/kg dry	1	0.0500	0.0670	0L01023	EPA 7471B	12/03/20 13:45	KAH	
Selenium [7782-49-2]^	0.445	U	mg/kg dry	1	0.445	0.543	0K23008	EPA 6010D	11/24/20 13:01	JDH	
Silver [7440-22-4]^	0.109	U	mg/kg dry	1	0.109	0.543	0K23008	EPA 6010D	11/24/20 13:01	JDH	

TCLP Metals by 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]	0.380	U	mg/L	1	0.380	0.500	0K30025	EPA 6010D	12/01/20 10:51	JDH	
Barium [7440-39-3]	**0.127**	J	mg/L	1	0.0550	0.500	0K30025	EPA 6010D	12/01/20 10:51	JDH	
Cadmium [7440-43-9]	0.0180	U	mg/L	1	0.0180	0.0500	0K30025	EPA 6010D	12/01/20 10:51	JDH	
Chromium [7440-47-3]	0.0700	U	mg/L	1	0.0700	0.500	0K30025	EPA 6010D	12/01/20 10:51	JDH	
Lead [7439-92-1]	0.155	U	mg/L	1	0.155	0.500	0K30025	EPA 6010D	12/01/20 10:51	JDH	
Mercury [7439-97-6]^	0.00300	U	mg/L	1	0.00300	0.00400	0K30011	EPA 7470A	12/02/20 11:19	KAH	
Selenium [7782-49-2]	0.310	U	mg/L	1	0.310	0.500	0K30025	EPA 6010D	12/01/20 10:51	JDH	
Silver [7440-22-4]	0.0950	U	mg/L	1	0.0950	0.500	0K30025	EPA 6010D	12/01/20 10:51	JDH	

Description: Crushed Concrete | **Lab Sample ID:** CD19328-02 | **Received:** 11/19/20 13:20
Matrix: Soil | **Sampled:** 11/17/20 08:30 | **Work Order:** CD19328
Project: Taylor Co TCLP | **Sampled By:** Nicolas Tejeda | **% Solids:** 90.13

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.355	U	mg/kg dry	1	0.355	0.555	0K23008	EPA 6010D	11/24/20 13:19	JDH	
Barium [7440-39-3]^	**192**		mg/kg dry	1	0.111	0.555	0K23008	EPA 6010D	11/24/20 13:19	JDH	
Cadmium [7440-43-9]^	0.0107	U	mg/kg dry	1	0.0107	0.0555	0K23008	EPA 6010D	11/24/20 13:19	JDH	
Chromium [7440-47-3]^	**13.5**		mg/kg dry	1	0.111	0.555	0K23008	EPA 6010D	11/24/20 13:19	JDH	
Lead [7439-92-1]^	**3.23**		mg/kg dry	1	0.133	0.555	0K23008	EPA 6010D	11/24/20 13:19	JDH	
Mercury [7439-97-6]^	0.0510	U	mg/kg dry	1	0.0510	0.0685	0L01023	EPA 7471B	12/03/20 13:48	KAH	
Selenium [7782-49-2]^	0.455	U	mg/kg dry	1	0.455	0.555	0K23008	EPA 6010D	11/24/20 13:19	JDH	
Silver [7440-22-4]^	0.111	U	mg/kg dry	1	0.111	0.555	0K23008	EPA 6010D	11/24/20 13:19	JDH	

TCLP Metals by 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]	0.380	U	mg/L	1	0.380	0.500	0K30025	EPA 6010D	12/01/20 11:13	JDH	
Barium [7440-39-3]	**1.04**		mg/L	1	0.0550	0.500	0K30025	EPA 6010D	12/01/20 11:13	JDH	
Cadmium [7440-43-9]	0.0180	U	mg/L	1	0.0180	0.0500	0K30025	EPA 6010D	12/01/20 11:13	JDH	
Chromium [7440-47-3]	**0.151**	J	mg/L	1	0.0700	0.500	0K30025	EPA 6010D	12/01/20 11:13	JDH	
Lead [7439-92-1]	0.155	U	mg/L	1	0.155	0.500	0K30025	EPA 6010D	12/01/20 11:13	JDH	
Mercury [7439-97-6]^	0.00300	U	mg/L	1	0.00300	0.00400	0K30011	EPA 7470A	12/02/20 11:21	KAH	
Selenium [7782-49-2]	0.310	U	mg/L	1	0.310	0.500	0K30025	EPA 6010D	12/01/20 11:13	JDH	
Silver [7440-22-4]	0.0950	U	mg/L	1	0.0950	0.500	0K30025	EPA 6010D	12/01/20 11:13	JDH	

ANALYTICAL RESULTS

Description: Road By Sumps | **Lab Sample ID:** CD19328-03 | **Received:** 11/19/20 13:20
Matrix: Soil | **Sampled:** 11/17/20 09:00 | **Work Order:** CD19328
Project: Taylor Co TCLP | **Sampled By:** Nicolas Tejeda | **% Solids:** 96.94

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	**0.904**		mg/kg dry	1	0.330	0.516	0K23008	EPA 6010D	11/24/20 13:22	JDH	
Barium [7440-39-3]^	**7.20**		mg/kg dry	1	0.103	0.516	0K23008	EPA 6010D	11/24/20 13:22	JDH	
Cadmium [7440-43-9]^	**0.146**		mg/kg dry	1	0.00990	0.0516	0K23008	EPA 6010D	11/24/20 13:22	JDH	
Chromium [7440-47-3]^	**16.8**		mg/kg dry	1	0.103	0.516	0K23008	EPA 6010D	11/24/20 13:22	JDH	
Lead [7439-92-1]^	**4.89**		mg/kg dry	1	0.124	0.516	0K23008	EPA 6010D	11/24/20 13:22	JDH	
Mercury [7439-97-6]^	0.0475	U	mg/kg dry	1	0.0475	0.0637	0L01023	EPA 7471B	12/03/20 13:50	KAH	
Selenium [7782-49-2]^	0.423	U	mg/kg dry	1	0.423	0.516	0K23008	EPA 6010D	11/24/20 13:22	JDH	
Silver [7440-22-4]^	0.103	U	mg/kg dry	1	0.103	0.516	0K23008	EPA 6010D	11/24/20 13:22	JDH	

TCLP Metals by 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]	0.380	U	mg/L	1	0.380	0.500	0K30025	EPA 6010D	12/01/20 11:16	JDH	
Barium [7440-39-3]	**0.160**	J	mg/L	1	0.0550	0.500	0K30025	EPA 6010D	12/01/20 11:16	JDH	
Cadmium [7440-43-9]	0.0180	U	mg/L	1	0.0180	0.0500	0K30025	EPA 6010D	12/01/20 11:16	JDH	
Chromium [7440-47-3]	0.0700	U	mg/L	1	0.0700	0.500	0K30025	EPA 6010D	12/01/20 11:16	JDH	
Lead [7439-92-1]	0.155	U	mg/L	1	0.155	0.500	0K30025	EPA 6010D	12/01/20 11:16	JDH	
Mercury [7439-97-6]^	0.00300	U	mg/L	1	0.00300	0.00400	0K30011	EPA 7470A	12/02/20 11:23	KAH	
Selenium [7782-49-2]	0.310	U	mg/L	1	0.310	0.500	0K30025	EPA 6010D	12/01/20 11:16	JDH	
Silver [7440-22-4]	0.0950	U	mg/L	1	0.0950	0.500	0K30025	EPA 6010D	12/01/20 11:16	JDH	

Description: Borrow Area | **Lab Sample ID:** CD19328-04 | **Received:** 11/19/20 13:20
Matrix: Soil | **Sampled:** 11/17/20 14:30 | **Work Order:** CD19328
Project: Taylor Co TCLP | **Sampled By:** Nicolas Tejeda | **% Solids:** 90.91

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]^	0.352	U	mg/kg dry	1	0.352	0.550	0K23008	EPA 6010D	11/24/20 13:24	JDH	
Barium [7440-39-3]^	**6.35**		mg/kg dry	1	0.110	0.550	0K23008	EPA 6010D	11/24/20 13:24	JDH	
Cadmium [7440-43-9]^	0.0106	U	mg/kg dry	1	0.0106	0.0550	0K23008	EPA 6010D	11/24/20 13:24	JDH	
Chromium [7440-47-3]^	**13.4**		mg/kg dry	1	0.110	0.550	0K23008	EPA 6010D	11/24/20 13:24	JDH	
Lead [7439-92-1]^	**2.84**		mg/kg dry	1	0.132	0.550	0K23008	EPA 6010D	11/24/20 13:24	JDH	
Mercury [7439-97-6]^	0.0506	U	mg/kg dry	1	0.0506	0.0679	0L01023	EPA 7471B	12/03/20 13:52	KAH	
Selenium [7782-49-2]^	0.451	U	mg/kg dry	1	0.451	0.550	0K23008	EPA 6010D	11/24/20 13:24	JDH	
Silver [7440-22-4]^	0.110	U	mg/kg dry	1	0.110	0.550	0K23008	EPA 6010D	11/24/20 13:24	JDH	

TCLP Metals by 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2]	0.380	U	mg/L	1	0.380	0.500	0K30025	EPA 6010D	12/01/20 11:18	JDH	
Barium [7440-39-3]	**0.104**	J	mg/L	1	0.0550	0.500	0K30025	EPA 6010D	12/01/20 11:18	JDH	
Cadmium [7440-43-9]	0.0180	U	mg/L	1	0.0180	0.0500	0K30025	EPA 6010D	12/01/20 11:18	JDH	
Chromium [7440-47-3]	0.0700	U	mg/L	1	0.0700	0.500	0K30025	EPA 6010D	12/01/20 11:18	JDH	
Lead [7439-92-1]	0.155	U	mg/L	1	0.155	0.500	0K30025	EPA 6010D	12/01/20 11:18	JDH	
Mercury [7439-97-6]^	0.00300	U	mg/L	1	0.00300	0.00400	0K30011	EPA 7470A	12/02/20 11:26	KAH	
Selenium [7782-49-2]	0.310	U	mg/L	1	0.310	0.500	0K30025	EPA 6010D	12/01/20 11:18	JDH	
Silver [7440-22-4]	0.0950	U	mg/L	1	0.0950	0.500	0K30025	EPA 6010D	12/01/20 11:18	JDH	

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0K23008 - EPA 3050B

Blank (0K23008-BLK1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 12:48

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.291	U	0.455	mg/kg wet							
Barium	0.0909	U	0.455	mg/kg wet							
Cadmium	0.00873	U	0.0455	mg/kg wet							
Chromium	0.0909	U	0.455	mg/kg wet							
Lead	**0.159**	**J**	0.455	mg/kg wet							
Selenium	0.373	U	0.455	mg/kg wet							
Silver	0.0909	U	0.455	mg/kg wet							

LCS (0K23008-BS1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 12:51

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	10.5		0.500	mg/kg wet	10.3		102	80-120			
Barium	11.4		0.500	mg/kg wet	10.3		111	80-120			
Cadmium	1.05		0.0500	mg/kg wet	1.03		102	80-120			
Chromium	11.1		0.500	mg/kg wet	10.3		107	80-120			
Lead	11.1		0.500	mg/kg wet	10.3		108	80-120			
Selenium	10.5		0.500	mg/kg wet	10.3		102	80-120			
Silver	11.2		0.500	mg/kg wet	10.3		109	80-120			

Matrix Spike (0K23008-MS1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 13:03

Source: CD19328-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	9.85		0.543	mg/kg dry	10.4	0.347 U	94	75-125			
Barium	14.1		0.543	mg/kg dry	10.4	1.57	120	75-125			
Cadmium	1.02		0.0543	mg/kg dry	1.04	0.0322	95	75-125			
Chromium	16.4		0.543	mg/kg dry	10.4	8.60	75	75-125			
Lead	12.6		0.543	mg/kg dry	10.4	2.02	102	75-125			
Selenium	8.35		0.543	mg/kg dry	10.4	0.445 U	80	75-125			
Silver	10.5		0.543	mg/kg dry	10.4	0.109 U	100	75-125			

Matrix Spike Dup (0K23008-MSD1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 13:05

Source: CD19328-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	11.3		0.543	mg/kg dry	11.6	0.347 U	98	75-125	14	20	
Barium	15.8		0.543	mg/kg dry	11.6	1.57	123	75-125	11	20	
Cadmium	1.17		0.0543	mg/kg dry	1.16	0.0322	98	75-125	13	20	
Chromium	19.9		0.543	mg/kg dry	11.6	8.60	98	75-125	19	20	
Lead	14.1		0.543	mg/kg dry	11.6	2.02	105	75-125	11	20	
Selenium	9.49		0.543	mg/kg dry	11.6	0.445 U	82	75-125	13	20	
Silver	12.0		0.543	mg/kg dry	11.6	0.109 U	104	75-125	13	20	

Post Spike (0K23008-PS1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 13:15

Source: CD19328-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.222		0.0100	mg/L	0.200	0.00226	110	80-120			
Barium	0.266		0.0100	mg/L	0.200	0.0277	119	80-120			
Cadmium	0.0233		0.00100	mg/L	0.0200	0.000569	114	80-120			
Chromium	0.376		0.0100	mg/L	0.200	0.152	112	80-120			

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0K23008 - EPA 3050B - Continued

Post Spike (0K23008-PS1) Continued Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 13:15

Source: CD19328-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Lead	0.259		0.0100	mg/L	0.200	0.0358	112	80-120			
Selenium	0.191		0.0100	mg/L	0.200	-0.0238	95	80-120			
Silver	0.225		0.0100	mg/L	0.200	-0.000963	112	80-120			

Batch 0L01023 - EPA 7471B

Blank (0L01023-BLK1) Prepared: 12/01/2020 14:42 Analyzed: 12/03/2020 13:12

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.0418	U	0.0561	mg/kg wet							

LCS (0L01023-BS1) Prepared: 12/01/2020 14:42 Analyzed: 12/03/2020 13:14

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.639		0.0686	mg/kg wet	0.667		96	80-120			

Matrix Spike (0L01023-MS1) Prepared: 12/01/2020 14:42 Analyzed: 12/03/2020 13:18

Source: CD19193-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.618		0.0633	mg/kg dry	0.637	0.0472 U	97	80-120			

Matrix Spike Dup (0L01023-MSD1) Prepared: 12/01/2020 14:42 Analyzed: 12/03/2020 13:20

Source: CD19193-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.665		0.0704	mg/kg dry	0.684	0.0525 U	97	80-120	7	20	

Post Spike (0L01023-PS1) Prepared: 12/01/2020 14:42 Analyzed: 12/03/2020 13:22

Source: CD19193-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.70		0.514	ug/L	5.00	-0.136	114	75-125			

TCLP Metals by 6000/7000 Series Methods - Quality Control

Batch 0K30011 - EPA 7470A

Blank (0K30011-BLK1) Prepared: 11/30/2020 09:09 Analyzed: 12/02/2020 10:13

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00015	U	0.00020	mg/L							

Blank (0K30011-BLK2) Prepared: 11/30/2020 09:09 Analyzed: 12/02/2020 10:16

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00300	U	0.00400	mg/L							

QUALITY CONTROL DATA

TCLP Metals by 6000/7000 Series Methods - Quality Control

Batch 0K30011 - EPA 7470A - Continued

LCS (0K30011-BS1) Prepared: 11/30/2020 09:09 Analyzed: 12/02/2020 10:18

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00553		0.00020	mg/L	0.00500		111	80-120			

Matrix Spike (0K30011-MS1) Prepared: 11/30/2020 09:09 Analyzed: 12/02/2020 10:23

Source: CD18064-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00547		0.00020	mg/L	0.00500	0.00015 U	109	75-125			

Matrix Spike Dup (0K30011-MSD1) Prepared: 11/30/2020 09:09 Analyzed: 12/02/2020 10:25

Source: CD18064-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00555		0.00020	mg/L	0.00500	0.00015 U	111	75-125	2	25	

Post Spike (0K30011-PS1) Prepared: 11/30/2020 09:09 Analyzed: 12/02/2020 10:29

Source: CD18064-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00584		0.00020	mg/L	0.00500	-0.000027	117	75-125			

Batch 0K30025 - EPA 3010A

Blank (0K30025-BLK1) Prepared: 11/30/2020 15:45 Analyzed: 12/01/2020 10:48

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.380	U	0.500	mg/L							
Barium	**0.0938**	**J**	0.500	mg/L							
Cadmium	0.0180	U	0.0500	mg/L							
Chromium	0.0700	U	0.500	mg/L							
Lead	0.155	U	0.500	mg/L							
Selenium	0.310	U	0.500	mg/L							
Silver	0.0950	U	0.500	mg/L							

LCS (0K30025-BS1) Prepared: 11/30/2020 15:45 Analyzed: 12/01/2020 10:54

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.195		0.0100	mg/L	0.200		98	80-120			
Barium	0.201		0.0100	mg/L	0.200		100	80-120			
Cadmium	0.0190		0.00100	mg/L	0.0200		95	80-120			
Chromium	0.193		0.0100	mg/L	0.200		97	80-120			
Lead	0.193		0.0100	mg/L	0.200		97	80-120			
Selenium	0.186		0.0100	mg/L	0.200		93	80-120			
Silver	0.197		0.0100	mg/L	0.200		98	80-120			

Matrix Spike (0K30025-MS1) Prepared: 11/30/2020 15:45 Analyzed: 12/01/2020 10:57

Source: CD19328-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	9.74		0.500	mg/L	10.0	0.380 U	97	75-125			
Barium	10.4		0.500	mg/L	10.0	0.127	102	75-125			
Cadmium	0.977		0.0500	mg/L	1.00	0.0180 U	98	75-125			

QUALITY CONTROL DATA

TCLP Metals by 6000/7000 Series Methods - Quality Control

Batch 0K30025 - EPA 3010A - Continued

Matrix Spike (0K30025-MS1) Continued Prepared: 11/30/2020 15:45 Analyzed: 12/01/2020 10:57

Source: CD19328-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chromium	10.0		0.500	mg/L	10.0	0.0700 U	100	75-125			
Lead	9.82		0.500	mg/L	10.0	0.155 U	98	75-125			
Selenium	9.50		0.500	mg/L	10.0	0.310 U	95	75-125			
Silver	10.1		0.500	mg/L	10.0	0.0950 U	101	75-125			

Matrix Spike Dup (0K30025-MSD1) Prepared: 11/30/2020 15:45 Analyzed: 12/01/2020 10:59

Source: CD19328-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	9.66		0.500	mg/L	10.0	0.380 U	97	75-125	0.8	20	
Barium	10.5		0.500	mg/L	10.0	0.127	104	75-125	2	20	
Cadmium	0.994		0.0500	mg/L	1.00	0.0180 U	99	75-125	2	20	
Chromium	10.1		0.500	mg/L	10.0	0.0700 U	101	75-125	1	20	
Lead	10.2		0.500	mg/L	10.0	0.155 U	102	75-125	3	20	
Selenium	9.64		0.500	mg/L	10.0	0.310 U	96	75-125	1	20	
Silver	10.3		0.500	mg/L	10.0	0.0950 U	103	75-125	2	20	

Post Spike (0K30025-PS1) Prepared: 11/30/2020 15:45 Analyzed: 12/01/2020 11:08

Source: CD19328-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.197		0.0100	mg/L	0.200	0.00161	97	80-120			
Barium	0.213		0.0100	mg/L	0.200	0.00254	105	80-120			
Cadmium	0.0200		0.00100	mg/L	0.0200	-0.000229	100	80-120			
Chromium	0.204		0.0100	mg/L	0.200	0.000381	102	80-120			
Lead	0.204		0.0100	mg/L	0.200	-0.00268	102	80-120			
Selenium	0.201		0.0100	mg/L	0.200	-0.00614	100	80-120			
Silver	0.210		0.0100	mg/L	0.200	-0.00104	105	80-120			

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
PQL	PQL: Practical Quantitation Limit. The PQL presented is the laboratory MRL.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence (85% or greater confidence) to make a "tentative identification".
P	Greater than 25% concentration difference was observed between the primary and secondary GC column. The lower concentration is reported.
[CALC]	Calculated analyte - MDL/MRL reported to the highest reporting limit of the component analyses.

ENCO
10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Client Name: GFI-Environmental-Taylorsv.	Project Number: 2013751l
Address: 5B Oak Branch Dr.	Project Name/Desc: Taylor county
City/ST/Zip: Greensboro, NC 27407	PO # / Billing Info:
Tel: 336-852-4903 / Fax:	Reporting Contact: Rachel Kirkman
Sampler(s) Name, Affiliation (Print): Nicolas Tejeda-Torres	Billing Contact:
Sampler(s) Signature:	Site Location / Time Zone: Mauk GA / EST

Requested Analyses

8 RCRA metals-Total
8 RCRA metals-TCLP

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

X Standard

___ Expedited

Due ___/___/___

Lab Workorder: CD19328

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	Preservation (See Codes) (Combine as necessary)										Sample Comments
	POND 1	11/17/2020	815	G	SO	3	X	X									
	CRUSHED CONCRETE	11/17/2020	830	G	SO	3	X	X									
	ROAD BY SMP 5	11/17/2020	900	G	SO	3	X	X									
	BORROW AREA	11/17/2020	1430	G	SO	3	X	X									

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time: 11/19/2020 11:30	Received By: Dan Duffy	Date/Time: 11-19-20 11:30
Comments/Special Reporting Requirements: level 2 Data Report		Relinquished By	Date/Time	Received By: Dan Duffy	Date/Time: 11-19-20 1:20
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 2.0°		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

Matrix : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

ENCO Laboratories

Accurate. Timely. Responsive. Innovative.

102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

Monday, January 25, 2021
GFL Environmental - Taylor Cty Landfill (WA058)
Attn: Rachel Kirkman
5B Oak Branch Drive
Greensboro, NC 27407

RE: Laboratory Results for
Project Number: 20137511.100, Project Name/Desc: Taylor Co Ash Characterization
ENCO Workorder(s): CD10175,CD19328

Dear Rachel Kirkman,

Enclosed is a copy of your laboratory report for test samples received by our laboratory between Friday, July 17, 2020 and Thursday, November 19, 2020.

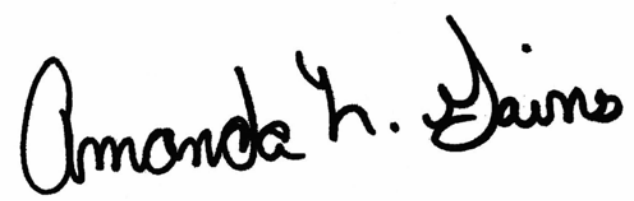
Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative if applicable. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Amanda L. Gaines

Project Manager

Enclosure(s)

www.encolabs.com

PROJECT NARRATIVE

Date: January 25, 2021
Client: GFL Environmental - Taylor Cty Landfill (WA058)
Project: Taylor Co Ash Characterization
Lab ID: CD10175, CD19328

Overview

This report is an amendment to the original reports datedJuly 24, 2020, December 3, 2020, and December 9, 2020 for this work order. This report was revised to report not previously requested Nickel and Vandadium results for all samples associated with these work orders.

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

No Comments

Other Comments

The analysis of Nickel and Vanadium for sample JEA Ash was peformed outside of the recommended hold time .

All samples received under this work order arrived in acceptable conditions. The samples were not checked for chlorine, as it is not required.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Amanda Gaines
Project Manager

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: JEA Ash | **Lab ID: CD10175-01RE1** | **Sampled: 07/15/20 17:03** | **Received: 07/17/20 13:53**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010D	EPA 3050B	01/11/21	12/04/20 11:30	01/22/21 16:40

Client ID: POND 1 | **Lab ID: CD19328-01** | **Sampled: 11/17/20 08:15** | **Received: 11/19/20 13:20**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010D	EPA 3050B	05/16/21	11/23/20 08:04	11/24/20 13:01

Client ID: Crushed Concrete | **Lab ID: CD19328-02** | **Sampled: 11/17/20 08:30** | **Received: 11/19/20 13:20**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010D	EPA 3050B	05/16/21	11/23/20 08:04	11/24/20 13:19

Client ID: Road By Sumps | **Lab ID: CD19328-03** | **Sampled: 11/17/20 09:00** | **Received: 11/19/20 13:20**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010D	EPA 3050B	05/16/21	11/23/20 08:04	11/24/20 13:22

Client ID: Borrow Area | **Lab ID: CD19328-04** | **Sampled: 11/17/20 14:30** | **Received: 11/19/20 13:20**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 6010D	EPA 3050B	05/16/21	11/23/20 08:04	11/24/20 13:24

SAMPLE DETECTION SUMMARY

Client ID: JEA Ash **Lab ID:** CD10175-01RE1

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Nickel - Total	586	D	7.95	25.0	mg/kg dry	EPA 6010D	Q-01
Vanadium - Total	1930	D	5.65	25.0	mg/kg dry	EPA 6010D	Q-01

Client ID: POND 1 **Lab ID:** CD19328-01

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Nickel - Total	1.88	J	0.391	2.71	mg/kg dry	EPA 6010D	
Vanadium - Total	19.5		0.109	0.543	mg/kg dry	EPA 6010D	

Client ID: Crushed Concrete **Lab ID:** CD19328-02

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Nickel - Total	8.81		0.399	2.77	mg/kg dry	EPA 6010D	
Vanadium - Total	25.6		0.111	0.555	mg/kg dry	EPA 6010D	

Client ID: Road By Sumps **Lab ID:** CD19328-03

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Nickel - Total	1.34	J	0.371	2.58	mg/kg dry	EPA 6010D	
Vanadium - Total	27.9		0.103	0.516	mg/kg dry	EPA 6010D	

Client ID: Borrow Area **Lab ID:** CD19328-04

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Nickel - Total	1.68	J	0.396	2.75	mg/kg dry	EPA 6010D	
Vanadium - Total	26.2		0.110	0.550	mg/kg dry	EPA 6010D	

ANALYTICAL RESULTS

Description: JEA Ash | **Lab Sample ID:** CD10175-01 | **Received:** 07/17/20 13:53
Matrix: Solid | **Sampled:** 07/15/20 17:03 | **Work Order:** CD10175
Project: Taylor Co Ash Characterization | **Sampled By:** Travis Martinez | **% Solids:** 100.32

Metals by EPA 6000/7000 Series Methods

^ - ENCO Orlando certified analyte [NELAC E83182]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Nickel [7440-02-0]^	**586**	D	mg/kg dry	50	7.95	25.0	0L04017	EPA 6010D	01/22/21 16:40	JSS	Q-01
Vanadium [7440-62-2]^	**1930**	D	mg/kg dry	50	5.65	25.0	0L04017	EPA 6010D	01/22/21 16:40	JSS	Q-01

Description: POND 1 | **Lab Sample ID:** CD19328-01 | **Received:** 11/19/20 13:20
Matrix: Soil | **Sampled:** 11/17/20 08:15 | **Work Order:** CD19328
Project: Taylor Co TCLP | **Sampled By:** Nicolas Tejeda | **% Solids:** 92.09

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Nickel [7440-02-0]^	**1.88**	J	mg/kg dry	1	0.391	2.71	0K23008	EPA 6010D	11/24/20 13:01	JDH	
Vanadium [7440-62-2]^	**19.5**		mg/kg dry	1	0.109	0.543	0K23008	EPA 6010D	11/24/20 13:01	JDH	

Description: Crushed Concrete | **Lab Sample ID:** CD19328-02 | **Received:** 11/19/20 13:20
Matrix: Soil | **Sampled:** 11/17/20 08:30 | **Work Order:** CD19328
Project: Taylor Co TCLP | **Sampled By:** Nicolas Tejeda | **% Solids:** 90.13

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Nickel [7440-02-0]^	**8.81**		mg/kg dry	1	0.399	2.77	0K23008	EPA 6010D	11/24/20 13:19	JDH	
Vanadium [7440-62-2]^	**25.6**		mg/kg dry	1	0.111	0.555	0K23008	EPA 6010D	11/24/20 13:19	JDH	

Description: Road By Sumps | **Lab Sample ID:** CD19328-03 | **Received:** 11/19/20 13:20
Matrix: Soil | **Sampled:** 11/17/20 09:00 | **Work Order:** CD19328
Project: Taylor Co TCLP | **Sampled By:** Nicolas Tejeda | **% Solids:** 96.94

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Nickel [7440-02-0]^	**1.34**	J	mg/kg dry	1	0.371	2.58	0K23008	EPA 6010D	11/24/20 13:22	JDH	
Vanadium [7440-62-2]^	**27.9**		mg/kg dry	1	0.103	0.516	0K23008	EPA 6010D	11/24/20 13:22	JDH	

Description: Borrow Area | **Lab Sample ID:** CD19328-04 | **Received:** 11/19/20 13:20
Matrix: Soil | **Sampled:** 11/17/20 14:30 | **Work Order:** CD19328
Project: Taylor Co TCLP | **Sampled By:** Nicolas Tejeda | **% Solids:** 90.91

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NELAC E87610]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Nickel [7440-02-0]^	**1.68**	J	mg/kg dry	1	0.396	2.75	0K23008	EPA 6010D	11/24/20 13:24	JDH	
Vanadium [7440-62-2]^	**26.2**		mg/kg dry	1	0.110	0.550	0K23008	EPA 6010D	11/24/20 13:24	JDH	

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0K23008 - EPA 3050B

Blank (0K23008-BLK1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 12:48

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nickel	0.327	U	2.27	mg/kg wet							
Vanadium	0.0909	U	0.455	mg/kg wet							

LCS (0K23008-BS1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 12:51

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nickel	11.3		2.50	mg/kg wet	10.3		110	80-120			
Vanadium	11.0		0.500	mg/kg wet	10.3		107	80-120			

Matrix Spike (0K23008-MS1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 13:03

Source: CD19328-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nickel	13.4		2.71	mg/kg dry	10.4	1.88	111	75-125			
Vanadium	31.4		0.543	mg/kg dry	10.4	19.5	114	75-125			

Matrix Spike Dup (0K23008-MSD1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 13:05

Source: CD19328-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nickel	15.0		2.71	mg/kg dry	11.6	1.88	113	75-125	11	20	
Vanadium	33.1		0.543	mg/kg dry	11.6	19.5	118	75-125	5	20	

Post Spike (0K23008-PS1) Prepared: 11/23/2020 08:04 Analyzed: 11/24/2020 13:15

Source: CD19328-01

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nickel	0.271		0.0500	mg/L	0.200	0.0332	119	80-120			
Vanadium	0.566		0.0100	mg/L	0.200	0.344	111	80-120			

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0L04013 - EPA 7471B

Blank (0L04013-BLK1) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:15

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00390	U	0.0100	mg/kg wet							

Blank (0L04013-BLK2) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:54

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.00390	U	0.0100	mg/kg wet							

LCS (0L04013-BS1) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:27

Analyte	Result	Flag	POL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.518		0.00882	mg/kg wet	0.529		98	80-120			

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0L04013 - EPA 7471B - Continued

LCS (0L04013-BS2) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:57

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.501		0.00882	mg/kg wet	0.529		95	80-120			

Matrix Spike (0L04013-MS1) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:34

Source: CD10175-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.625		0.0100	mg/kg dry	0.619	0.00390 U	101	80-120			

Matrix Spike Dup (0L04013-MSD1) Prepared: 12/04/2020 15:17 Analyzed: 12/07/2020 09:37

Source: CD10175-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.625		0.0100	mg/kg dry	0.619	0.00390 U	101	80-120	0.07	20	

Batch 0L04017 - EPA 3050B

Blank (0L04017-BLK1) Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 11:44

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.192	U	1.00	mg/kg wet							
Barium	0.0930	U	1.00	mg/kg wet							
Cadmium	0.0620	U	0.100	mg/kg wet							QB-01, QB-02
Chromium	0.0840	U	0.500	mg/kg wet							
Lead	**0.320**	**J**	0.500	mg/kg wet							J-01, QB-01, Q
Nickel	0.159	U	0.500	mg/kg wet							
Selenium	0.411	U	2.00	mg/kg wet							
Silver	0.135	U	0.500	mg/kg wet							
Vanadium	0.113	U	0.500	mg/kg wet							

LCS (0L04017-BS1) Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 11:56

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	26.1		1.00	mg/kg wet	25.5		102	80-120			
Barium	25.6		1.00	mg/kg wet	25.6		100	80-120			
Cadmium	2.50		0.100	mg/kg wet	2.54		98	80-120			
Chromium	25.4		0.500	mg/kg wet	25.5		100	80-120			
Lead	24.6	B	0.500	mg/kg wet	25.5		97	80-120			
Nickel	25.3		0.500	mg/kg wet	25.5		99	80-120			
Selenium	25.2		2.00	mg/kg wet	25.5		99	80-120			
Silver	4.34		0.500	mg/kg wet	4.38		99	80-120			
Vanadium	25.3		0.500	mg/kg wet	25.4		100	80-120			

Matrix Spike (0L04017-MS1) Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 12:01

Source: AD08093-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	26.3		1.05	mg/kg dry	26.0	0.768	99	75-125			
Barium	28.3		1.05	mg/kg dry	26.0	1.34	104	75-125			
Cadmium	2.56		0.105	mg/kg dry	2.58	0.0650 U	99	75-125			
Chromium	28.1		0.524	mg/kg dry	26.0	1.95	101	75-125			
Lead	26.5	B	0.524	mg/kg dry	26.0	0.934	98	75-125			

QUALITY CONTROL DATA

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 0L04017 - EPA 3050B - Continued

Matrix Spike (0L04017-MS1) Continued Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 12:01

Source: AD08093-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nickel	26.6		0.524	mg/kg dry	26.0	0.422	101	75-125			
Selenium	24.3		2.10	mg/kg dry	26.0	0.431 U	94	75-125			
Silver	4.36		0.524	mg/kg dry	4.46	0.142 U	98	75-125			
Vanadium	28.8		0.524	mg/kg dry	25.8	3.12	100	75-125			

Matrix Spike Dup (0L04017-MSD1) Prepared: 12/04/2020 11:30 Analyzed: 12/07/2020 12:04

Source: AD08093-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	25.7		1.05	mg/kg dry	25.4	0.768	98	75-125	3	20	
Barium	27.6		1.05	mg/kg dry	25.5	1.34	103	75-125	3	20	
Cadmium	2.49		0.105	mg/kg dry	2.53	0.0650 U	98	75-125	3	20	
Chromium	27.5		0.524	mg/kg dry	25.4	1.95	100	75-125	2	20	
Lead	25.8	B	0.524	mg/kg dry	25.4	0.934	98	75-125	3	20	
Nickel	25.9		0.524	mg/kg dry	25.4	0.422	100	75-125	2	20	
Selenium	23.9		2.10	mg/kg dry	25.4	0.431 U	94	75-125	2	20	
Silver	4.22		0.524	mg/kg dry	4.37	0.142 U	97	75-125	3	20	
Vanadium	28.2		0.524	mg/kg dry	25.3	3.12	99	75-125	2	20	

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
PQL	PQL: Practical Quantitation Limit. The PQL presented is the laboratory MRL.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence (85% or greater confidence) to make a "tentative identification".
P	Greater than 25% concentration difference was observed between the primary and secondary GC column. The lower concentration is reported.
[CALC]	Calculated analyte - MDL/MRL reported to the highest reporting limit of the component analyses.
J-01	Result may be biased high due to positive results in the associated method blank at a concentration above the MDL and/or greater than one-half the MRL.
Q-01	Analysis performed outside of method - specified holding time.
Q-02	Sample received outside of method - specified holding time.
QB-01	The method blank had a positive result for the analyte; however, the concentration in the method blank is less than 10% of the sample result. There is minimal impact to the data.
QB-02	The method blank contains analyte at a concentration above the MDL and/or greater than one-half the MRL. The analyte was not detected in the sample.

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Client Name: GFL Environmental - Taylor Cty Landfill (WA058)	Project Number: 20137511.100
Address: 5B Oak Branch Drive	Project Name/Desc: Taylor Co Ash Characterization
City/ST/Zip: Greensboro, NC 27407	PO # / Billing Info: 2019:
Tel: (336) 852-4903 Fax:	Reporting Contact: Rachel Kirkman
Sampler(s) Name, Affiliation (Print): Travis Martinez	Billing Contact: Laura Young
Sampler(s) Signature:	Site Location / Time Zone: Mauk, GA / EST

Requested Analyses

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	1311 TCLP EXT Metals, TCLP Ag, TCLP As, TCLP Ba, TCLP Cd, TCLP Cr, TCLP Pb, TCLP Se	TCLP Hg	Sample Comments
	JEA Ash	7-15-2020	1703	G	SOLID	2	X	X	

Preservation (See Codes) (Combine as necessary)

<-- Total # of Containers

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

X Standard

___ Expedited

Due ___/___/___

Lab Workorder: CD10175

Sample Kit Prepared By: RY	Date/Time: 10/23	Relinquished By:	Date/Time: 7/17/2020/1230	Received By: TJP	Date/Time: 7/17/20 12:30
Comments/Special Reporting Requirements: level 2 data report		Relinquished By:	Date/Time:	Received By: TSP	Date/Time: 7/17/20 1:53
		Relinquished By:	Date/Time:	Received By:	Date/Time:
		Cooler #'s & Temps on Receipt: C-3 2.7C		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

Matrix : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

ENCO
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102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

Client Name: GFI-Environmental-Taylorsv.	Project Number: 2013751l
Address: 5B Oak Branch Dr.	Project Name/Desc: Taylor county
City/ST/Zip: Greensboro, NC 27407	PO # / Billing Info:
Tel: 336-852-4903 / Fax:	Reporting Contact: Rachel Kirkman
Sampler(s) Name, Affiliation (Print): Nicolas Tejeda-Torres	Billing Contact:
Sampler(s) Signature:	Site Location / Time Zone: Mauk GA / EST

Requested Analyses

8 RCRA metals-Total
8 RCRA metals-TCLP

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

X Standard

___ Expedited

Due ___/___/___

Lab Workorder: CD19328

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	Preservation (See Codes) (Combine as necessary)										Sample Comments
	POND 1	11/17/2020	815	G	SO	3	X	X									
	CRUSHED CONCRETE	11/17/2020	830	G	SO	3	X	X									
	ROAD BY SMP 5	11/17/2020	900	G	SO	3	X	X									
	BORROW AREA	11/17/2020	1430	G	SO	3	X	X									

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By	Date/Time: 11/19/2020 11:30	Received By: Dan Duffney	Date/Time: 11-19-20 11:30
Comments/Special Reporting Requirements: level 2 Data Report		Relinquished By	Date/Time	Received By: Dan Duffney	Date/Time: 11-19-20 1:20
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 2.0°		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

Matrix : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

WORK ORDER

Printed: 11/20/2020 8:16:49AM

CD19328

ENCO Cary

Sample Receipt Conditions

Client:	**GFL Environmental - Taylor Cty Landfill (WA058)**	**Lab Project Mgr:**	**Amanda L. Gaines**
Project:	**Taylor Co TCLP**	**Project Number:**	**[none]**
PO #:			

Report To:

GFL Environmental - Taylor Cty Landfill (WA058)
Rachel Kirkman
5B Oak Branch Drive
Greensboro, NC 27407
Phone: (336) 852-4903
Fax:

Invoice To:

GFL Environmental - Taylor Cty Landfill (WA058)
Laura Young
208 Southern States Road
Mauk, GA 31058
Phone :(478) 862-2504
Fax:

Received By:	Don W Derflinger	Date Received:	19-Nov-20 13:20
Logged In By:	John C King	Date Logged In:	19-Nov-20 14:40

Work Order Comments:

Default Cooler received at 2.0°C

Containers Intact	**Y**	Containers Properly Preserved	**Y**	Proper Containers Received	**Y**	All Samples in PreLog Received	**N**	COC/Labels Agree	**Y**
Custody Seals Intact	**Y**	Volatile Containers Preserved	**N**	Volatile Containers Headspace Free	**N**	Aqueous Samples Checked for Residual Cl	**N**	Received On Ice	**Y**
Temperature Corrected	**Y**								

State of Florida
Department of Health, Bureau of Public Health Laboratories
This is to certify that

E87610

ENVIRONMENTAL CONSERVATION LABORATORIES, INC. - CARY
102A WOODWINDS INDUSTRIAL COURT
CARY, NC 27511

has complied with Florida Administrative Code 64E-1,
for the examination of environmental samples in the following categories

DRINKING WATER - GROUP I UNREGULATED CONTAMINANTS, DRINKING WATER - GROUP II UNREGULATED CONTAMINANTS, DRINKING WATER - OTHER REGULATED CONTAMINANTS, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - RADIOCHEMISTRY, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, DRINKING WATER - SYNTHETIC ORGANIC CONTAMINANTS, NON-POTABLE WATER - EXTRACTABLE ORGANICS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - PESTICIDES-HERBICIDES-PCB'S, NON-POTABLE WATER - VOLATILE ORGANICS, SOLID AND CHEMICAL MATERIALS - EXTRACTABLE ORGANICS, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - PESTICIDES-HERBICIDES-PCB'S, SOLID AND CHEMICAL MATERIALS - VOLATILE ORGANICS

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Public Health Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: July 01, 2020 Expiration Date: June 30, 2021

Patty A. Lewandowski, MBA, MT(ASCP)
Chief Bureau of Public Health Laboratories
DH Form 1697, 7/04
NON-TRANSFERABLE E87610-40-07/01/2020
Supersedes all previously issued certificates