GIO ENVIR

JACKSONVILLE, FLORIDA

DULUTH, GEORGIA

MONITORING, INSPECTION, AND TESTING PLAN

CALVARY STATION, LLC 1563 CALVARY CHURCH ROAD GAINESVILLE GEORGIA

March 14, 2024

LOGIC Project \$153-01

TABLE OF CONTENTS

Section	<u>Page</u>				
ĩ	Overview and Purpose				
11	Treatment System Description.				
	a. Structuresb. Sedimentc. Waterd. Operational Practices				
III	System Inspection2				
IV	Monitoring3				
	a. Sampling Locations and Frequencyb. Sampling protocolsc. Record Keeping				
٧	Modifications4				
<u>Figures</u>					
A B C	Site Location Map System Layout Pond Discharge and Downstream Sampling Zones				
<u>Table</u>					
	Sample Analysis & Analytical Methods				
Appendi	ces				
I II III	Weekly Inspection Report Analytical Results from Semi-Annual Sampling Plan Modifications				

I. OVERVIEW AND PURPOSE

Logic Environmental, Inc. (LOGIC) has prepared this Monitoring, Inspection and Testing Plan ("Plan") to be implemented in conjunction with the operation of the hydro-extrusion waste collection and treatment facility operated by Calvary Station, LLC at 1563 Calvary Church Road in Gainesville, Hall County.

Calvary Station, LLC will operate a recoverable materials processing facility for a slurry of soil and water generated by hydro-extrusion, allowing for the reuse of dried soil cuttings as backfill at project sites. This Plan has been prepared pursuant to the request of the Hall County Board of Commissioners as a condition of the approval for Calvary Station, LLC's business license.

II. TREATMENT SYSTEM DESCRIPTION

A. FACILITY DESCRIPTION

The approximately 12.7-acre property extends southeast from Calvary Church Road. The site's location is depicted in a Location Map included as Figure A. The property supports a long, gravel driveway for truck parking, storage, access, and training purposes. The southwest boundary on the southeast half of the property supported three ponds discussed from northwest-to-southeast:

The first and smallest pond is the hydro-excavation receiving pond. ("Receiving Pond"). The second pond in the train ("Filtration Pond") receives discharges from the Receiving Pond and allows further settling of sediment. The third and fourth ponds ("Upper and Lower Stormwater Management Ponds") receive overflow from the Filtration Pond and provide a final stage for settlement and polishing. An outfall for the Lower Stormwater Management Pond discharges to a drainage pathway and off site, via surface features on the southeast edge of the site, which is wooded and slopes steeply southeast. The system is depicted in a System Layout map included as Figure B.

B. PROCESS OVERVIEW

Hydro-extrusion trucks will deposit the extrusion slurry onto a sloped, concrete pad situated adjacent to Receiving Pond. From the pad, slurry will be transferred to the Receiving Pond, which has a capacity of approximately 500 loads. After a period of settlement, the Receiving Pond will be manually dewatered via a pump and hose positioned at the water's surface, and the soil will be dredged using an excavator northeast of the Receiving Pond. The soil will be spread to dry in this area prior to being hauled off site for reuse as backfill at off-site excavations. During heavy storm events, water in each settlement pond will overflow to the lower pond in the train and ultimately off site. Barring heavy storm events, the ponds are not anticipated to exceed capacity during normal operations. The facility will be gated and locked at all times. Customers will be provided with key card access.

C. SEDIMENT

The facility does not accept environmental drilling water or cuttings, a condition stipulated by the Standard Terms and Conditions agreement signed by customers. The facility is intended to receive only clean soil, free of any contaminants or deleterious substances. Any soil or excavated sediment which has been identified as potentially inconsistent with these criteria will be directed to a suitable, off-site disposal site. The sampling criteria established in Section IV have been selected based upon broad, historical information regarding the most widely identified constituents known to be associated with road rights-of-way in the North Georgia region. After de-watering, sediment recovered from the on-site pond will be hauled off site for use as backfill.

D. WATER

The facility will accept only drilling sludge. No wastewater or wholly aqueous waste will be accepted. The process of generating and transporting the sludge will provide incidental aeration to the waste, which will be further aerated in the on-site ponds. As a result of aerobic processes, settlement and dilution with storm water runoff which is collected by the ponds, any incidental volatile or semi-volatile contaminants introduced to the treatment train are expected to be reduced to undetectable concentrations prior to discharge. Overflow will be discharged to an unnamed, intermitted ditch in the woods southeast of the site. This ditch ultimately discharges to an unnamed tributary of Walnut Creek, situated about 1,035 feet east of the site's southeast boundary, running south through the east-adjoining, approximately 115-acre Cherokee Gun Club property. The discharge and down-stream sampling zones are depicted in Figure C.

III. System inspection

Weekly visual inspections of the facility will be conducted by on-site staff, as allowed by weather and site conditions. The accumulated water (if any) and vegetation in each pond will be observed for signs of adverse impact, including sheens, staining, and/or damaged vegetation. Additionally, the outfall point at the Lower Storm Water Management Pond will be examined for signs of erosion or excessive sediment accumulation. Inspection Record forms are accumulated in Appendix I.

IV. SAMPLING & MONITORING

A. SLUDGE

Semi-annual sampling will be conducted of the sludge, following a suitable period of dewatering. Composite samples will be collected from random shipments which are judged to be representative of typical incoming shipments. Samples will be collected within two hours of delivery to the facility, from sludge which has been deposited on the Receiving Pad. Each sample will consist of a minimum of four (4) aliquots and will be handled and preserved in accordance with US EPA Standard Operating Procedures/Quality Assurance Manual (SOP/QAM) SW-846. Samples will be preserved on ice and will be submitted for laboratory analysis for the parameters specified on the Table.

B. RECOVERED SOIL

Semi-annual sampling will be conducted of the recovered soil, following a suitable period of dewatering, prior to its recovery for off-site use. Composite samples will be collected from the Drying Pad following excavation from the Receiving Pond. Samples will be collected from material judged to be representative of typical conditions. Each sample will consist of a minimum of four (4) aliquots and will be handled and preserved in accordance with US EPA Standard Operating Procedures/Quality Assurance Manual (SOP/QAM) SW-846. Samples will be preserved on ice and will be submitted for laboratory analysis for the parameters specified on the Table.

C. WASTEWATER

Semi-annual sampling will be performed on discharges from the Treatment System. Four surface water samples will be collected, including one from the Filtration Pond, one from the Upper Storm Water Management Pond, one from the Lower Storm Water Management Pond discharge stream, and one from a down-stream, off-site location. Due to the downstream creek running through a private gun club, the nearest access point for sampling downstream appears to be near the intersection of this creek and Gibbs Drive near 1636 Gibbs Drive), about 3,000 feet south of the site. Field screening will be performed to determine the turbidity, pH, and conductivity of each sample. Samples will be preserved on ice and will be submitted for laboratory analysis for the parameters specified on the Table.

D. RECORDKEEPING

Weekly inspection records and semi-annual analytical results will be maintained for a period not to exceed five years. Copies will be included in Appendices I and II of this Plan. These records will be available for inspection by Hall County officials.

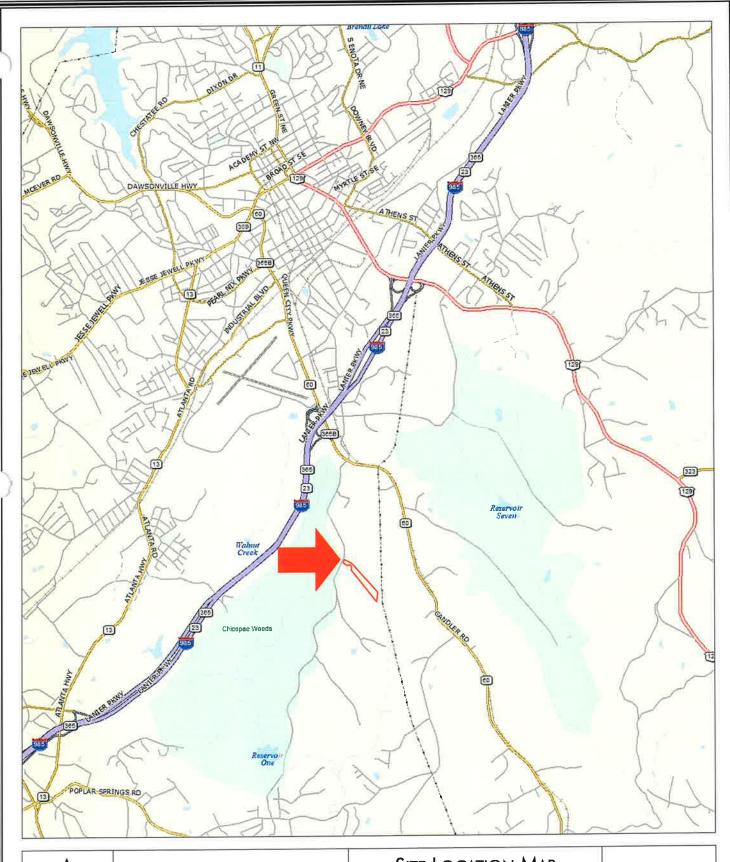
V. MODIFICATIONS

This plan may be amended or modified, as required by substantial changes to the facility or treatment system, significant operation changes, natural disaster, or other unforeseeable circumstances. Any changes, modifications, or deletions from this plan will be documented and included in Appendix III, following approval by Hall County.

TABLE SAMPLE ANALYSIS & ANALYTICAL METHODS

Sample Location	Matrix	Sample Type	Analytical Parameters	Analytical Method
Incoming Sludge	Soil	Composite	Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver	SW-6010/6020
			Mercury	SW-7470
		Grab	Semi-Volatile Organics	SW-8270
			Volatile Organics	SW-8260
Soil for Re-use	Soil	Composite	Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver	SW-6010/6020
			Mercury	SW-7470
		Grab	Semi-Volatile Organics	SW-8270
			Volatile Organics	SW-8260
Filtration Pond	Water	Grab	Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver	SW-6010/6020 (filtered)
			Mercury	SW-7470 (filtered)
			Semi-Volatile Organics	SW-8270
			Volatile Organics	SW-8260
Upper Storm Water Management	Water	Grab	Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver	SW-6010/6020 (filtered)
Pond			Mercury	SW-7470 (filtered)
TOTIC			Semi-Volatile Organics	SW-8270
			Volatile Organics	SW-8260
Storm Water Pond Outfall Stream	Water	Grab	Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver	SW-6010/6020 (filtered)
O,, Odin			Mercury	SW-7470 (filtered)
			Semi-Volatile Organics	SW-8270
			Volatile Organics	SW-8260
Downstream	Water	Grab	Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver	SW-6010/6020 (filtered)
			Mercury	SW-7470 (filtered)
			Semi-Volatile Organics	SW-8270 `
			Volatile Organics	SW-8260

FIGURES



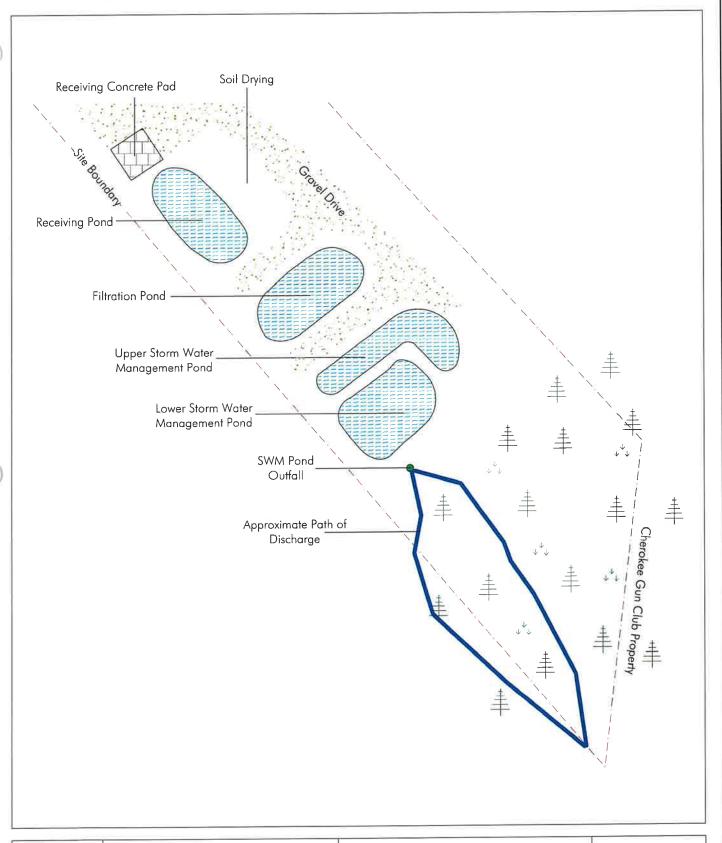




SITE LOCATION MAP

1563 Calvary Church Road Gainesville, Georgia ATTACHMENT





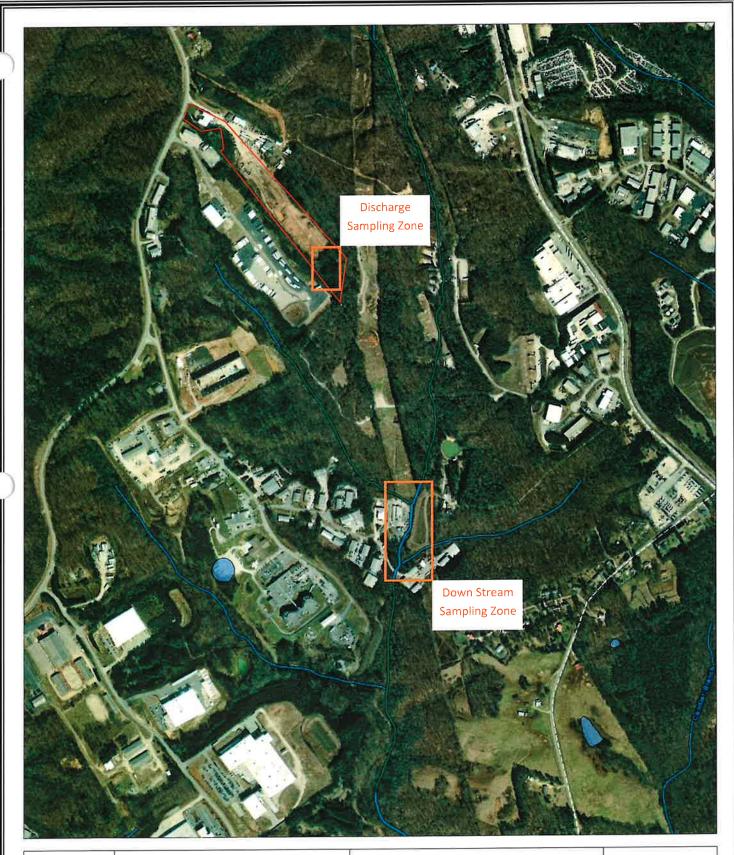




SYSTEM LAYOUT

1563 Calvary Church Road Gainesville, Georgia ATTACHMENT

В







SAMPLING ZONES

1563 Calvary Church Road Gainesville, Georgia ATTACHMENT

C

APPENDICES