pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

51-30277
Facility I.D.

GATZ AUTO
Facility Name

PHILADELPHIA	PHILADELPHIA
Municipality	County

March 19, 2024
Date Prepared

GILBERT J. MARSHALL, PG
Name of Person Submitting Report
(Please Print)

MARSHALL GEOSCIENCE, INC.
Company Name
(If Applicable)

PRINCIPAL GEOLOGIST
Title

Closure Method (Check all that apply):

- [X] UST Removal
- [ ] UST Closure-In-Place
- [ ] UST Change-In-Service

Site Assessment Results (Check all that apply):

- [ ] No Obvious Contamination - Sample Results Meet Standards/Levels
- [ ] No Obvious Contamination - Sample Results Do Not Meet Standards/Levels
- [ ] Obvious, Localized Contamination - Sample Results Meet Standards/Levels
- [X] Obvious, Localized Contamination - Sample Results Do Not Meet Standards/Levels
- [ ] Obvious, Extensive Contamination

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

DATE RECEIVED: _____

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

Owners who are permanently closing underground storage tank systems may use this form to demonstrate that a storage tank system closure was performed in accordance with technical guidance document 263-4500-601 "Closure Requirements for Underground Storage Tank Systems". PLEASE PRINT OR TYPE. COMPLETE ALL QUESTIONS.

SECTION I. Owner/Facility/Tank/Waste Management and Disposal Information

1. Facility ID Number 51-30277
2. Facility Name GATZ AUTO
3. Facility County PHILADELPHIA
4. Facility Municipality PHILADELPHIA
5. Facility Address 2899 HOLME AVENUE, PHILADELPHIA, PA 19152
6. Facility Contact Person JAMES KERRIGAN
7. Facility Telephone Number (267) 994-4466
8. Owner Name GATZ AUTO, INC.
9. Owner Mailing Address 2899 HOLME AVENUE, PHILADELPHIA, PA 19152
10. Description of Underground Storage Tank Systems (Complete for each tank system closed)

DATE OF TANK SYSTEM CLOSURE (Month/Day/Year)		1 - 26 - 2024	1 - 26 - 2024	1 - 25 - 2024	- -
Description of Underground Storage Tank System (Complete for each tank system undergoing closure)					
DEP Tank ID Number		001	002	003	
Total Capacity (Gallons)		8,000	8,000	8,000	
Substance(s) Stored Throughout Operating Life of Tank System (Check All That Apply)	**a. Petroleum**				
	Unleaded Gasoline	☒	☒	☒	☐
	Leaded Gasoline	☐	☐	☐	☐
	Aviation Gasoline	☐	☐	☐	☐
	Pure Ethanol	☐	☐	☐	☐
	Blended Ethanol _____%	☐	☐	☐	☐
	Kerosene	☐	☐	☐	☐
	Jet Fuel	☐	☐	☐	☐
	Diesel Fuel	☐	☐	☐	☐
	Biodiesel _____%	☐	☐	☐	☐
	Fuel Oil No. 1	☐	☐	☐	☐
	Fuel Oil No. 2	☐	☐	☐	☐
	Fuel Oil No. 4	☐	☐	☐	☐
	Fuel Oil No. 5	☐	☐	☐	☐
	Fuel Oil No. 6	☐	☐	☐	☐
	New Motor Oil	☐	☐	☐	☐
	Used Motor Oil	☐	☐	☐	☐
	Nonpetroleum Oil, Specify				
	Other, Specify				
NOTE: If Hazardous Substance Block is Checked, Attach Safety Data Sheets (SDS)	**b. Hazardous Substance**	☐	☐	☐	☐
	Name of Principal CERCLA Substance AND Chemical Abstract Service (CAS) No.				
	c. Unknown	☐	☐	☐	☐

CLOSURE METHOD(s):	DEP Tank ID Number:	001	002	003	
Partial Storage Tank System Closure		☐	☐	☐	☐
Tank ☐ N/A	a. Removal	☒	☒	☒	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-in-Service	☐	☐	☐	☐
Piping ☐ N/A	a. Removal	☒	☒	☒	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-in-Service	☐	☐	☐	☐
Dispenser ☐ N/A	a. Removal	☒	☒	☒	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-in-Service	☐	☐	☐	☐
Other _____	a. Removal	☐	☐	☐	☐
	b. Closure-in-Place	☐	☐	☐	☐
	c. Change-in-Service	☐	☐	☐	☐

Describe Closure Activities:

FERGUSON & McCANN, INC. DECOMMISSIONED, CLEANED AND REMOVED UST SYSTEMS 001, 002 AND 003 INCLUDING THE TANKS, PUMPS, PIPING AND APPURTENANT EQUIPMENT. MARSHALL GEOSCIENCE, INC. PERFORMED THE CLOSURE ASSESSMENT DURING THE REMOVAL OF UST SYSTEMS 001, 002 AND 003 FOR PERMANENT CLOSURE.

Yes **N/A**

11. Briefly describe the storage tank facility and the nature of the operations which were conducted at the facility (both historical and present) **including use of the storage tank systems:**

THE REGULATED GASOLINE UST SYSTEMS WERE FORMERLY USED TO STORE AND DISPENSE FUEL FOR RETAIL SALE BY GATZ AUTO.

☒ ☐ 12. A site location and sampling map of the site, drawn to scale, is attached. ~~See page 11 of 11~~
SEE FIGURES 1 THROUGH 3.

☒ ☐ 13. Original, color photographs of the closure process are attached (i.e., inside of excavation/piping runs, pit water, tanks showing condition).
SEE PHOTOGRAPHS ATTACHMENT.

☒ ☐ 14. An amended "Storage Tanks Registration/Permitting Application" Form was submitted to the DEP, Bureau of Environmental Cleanup and Brownfields, Division of Storage Tanks, P.O. Box 8762, Harrisburg, PA 17105-8762.
Date: 01/ 29 / 2024

☒ ☐ 15. If a release was confirmed, the appropriate regional office of DEP was notified by the owner or operator.
Date: 01 / 25 / 2024 Office: SOUTHEAST REGION

Yes N/A

☒ ☐ 16. If tanks were cleaned on-site:

a. Briefly describe the disposition of usable product: USABLE PRODUCT WAS DISPENSED TO THE MAXIMUM EXTENT POSSIBLE.

b. Briefly describe the disposal of unusable product, sludges, sediments, and wastewater generated during cleaning. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):
WASTEWATER GENERATED DURING TANK CLEANING (750 Gallons) WAS REMOVED, TRANSPORTED AND PROPERLY DISPOSED USING A VACUUM TRUCK BY MILLER ENVIRONMENTAL GROUP (SEE ATTACHMENT 1).

c. If tank contents were determined/deemed to be hazardous waste, provide:

(1) Generator ID Number:

(2) Licensed Hazardous Waste Transporter Name and ID Number:

☐ ☒ 17. If tanks were removed from the site for cleaning:

a. Provide the name and permit number of the processing, treatment, storage or disposal facility performing the tank cleaning:

b. If tank contents were determined/deemed to be hazardous waste, provide:

(1) Generator ID Number:

(2) Licensed Hazardous Waste Transporter Name and ID Number:

18. Briefly describe the disposition of tanks/piping (Attach documentation of proper disposal):
THE UST SYSTEM TANKS, PIPING AND APPURTENANT EQUIPMENT WERE PROPERLY DISPOSED AT DELAWARE COUNTY SOLID WASTE AUTHORITY (SEE ATTACHMENT 2).

☒ ☐ 19. If contaminated soil is excavated:

a. Briefly describe the disposition and amount 57.19 (tons) of contaminated soil. Provide the name and permit number of the processing, treatment, storage or disposal facility. (Attach documentation of proper disposal):
A TOTAL OF 57.19 TONS OF GASOLINE-IMPACTED SOILS WAS PROPERLY TRANSPORTED AND RECYCLED AT SOIL SAFE, INC.'S LOGAN, NEW JERSEY FACILITY (SEE ATTACHMENT 3).

b. If contaminated soil is determined/deemed to be hazardous waste, provide:

(1) Generator ID Number:

(2) Licensed Hazardous Waste Transporter Name and ID Number:

Yes	N/A		
☒	☐	20.	Briefly describe the disposition of and amount ~480 (tons) of uncontaminated soil and debris (attach analyses): CONCRETE WAS MANAGED OFFSITE BY BLUE MOUNTAIN MULCH (6 LOADS) AND GILL QUARRIES (1 LOAD) (SEE ATTACHMENT 4). NO EVIDENCE OF CONTAMINATION WAS OBSERVED IN THE EXCAVATED MATERIALS BASED ON PHYSICAL OBSERVATIONS, PID FIELD-SCREENING AND LABORATORY ANALYSES (SEE BF-1 IN TABLE 1 AND ATTACHMENT 5).
☐	☒	21.	If the tanks were "Closed-in-Place" provide information below.

a. Briefly describe the tank cleaning process. _____

b. Describe the inert, non-shrinking material placed into the tanks: _____

I, JAMES KERRIGAN (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the owner of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.

James A Kerrigan
Signature of Tank Owner

3/22/24
Date

GATZ AUTO, INC.
Company Name
(If applicable)

PRESIDENT
Title

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION II. Tank Handling Information

Facility ID Number 51 - 30277
DEP Tank ID Number(s) 001, 002 and 003

Yes N/A

1. Briefly describe the excavation and initial on-site staging of uncontaminated/contaminated soil and debris:

   UNCONTAMINATED SOIL WAS STAGED ON-SITE PRIOR TO REUSE TO PARTIALLY BACKFILL THE TANK EXCAVATION. CONTAMINATED SOIL WAS ENVELOPED WITH PLASTIC SHHETING AND STAGE ON THE STATION'S PAVED LOT PRIOR TO MANAGEMENT OFFSITE.

2. Briefly describe the method of piping system closure and the closure of the piping systems, including the quantity and condition of the piping:

   ALL PIPING WAS IN GOOD CONDITION AND REMOVED FOR PERMANENT CLOSURE.

3. Briefly describe the condition of the tanks and any problems encountered during tank handling or tank removal activities:

   UST 001: GOOD CONDITION. UST 002: CIRCUMFERENTIAL CRACK AT NORTH END OF TANK, BUT NO EVIDENCE OF A RELEASE. UST 003: CIRCUMFERENTIAL CRACK AT NORTH END OF TANK WITH EVIDENCE OF RELEASE (PADEP NOTIFIED).

4. Briefly describe the method used to purge the tanks of and monitor for hazardous or explosive vapors:

   PURGED TANKS WITH AIR EXCHANGER AND CHECKED TANK ATMOSHERE WITH LEL METER.

☒ ☐ 5. If tanks were cleaned on-site:

   a. Briefly describe the tank cleaning process:
   TANKS WERE TRIPLE-RINSED WITH CLEAN WATER. WASTEWATER WAS REMOVED AND PROPERLY DISPOSED USING A VACUUM TRUCK.

   b. If subcontracted, name and address of company that performed the tank cleaning:

☐ ☒ 6. If tanks were “Closed-in-Place”, briefly describe the tank fill material:

☒ ☐ 7. If contamination was suspected or observed, the “Notification of Contamination” form was submitted.

I, TIMOTHY FISCHER, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the certified remover who performed the tank handling activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section I) is true, accurate and complete to the best of my knowledge and belief.

(Print Name)

Timothy Fischer
Signature of Certified Remover

1 12/6/2024
Date

5197
Remover Certification Number

249
Company Certification Number

FERGUSON & McCANN, INC.
Company Name

270 BODLEY ROAD
Street

ASTON, PA 19014
City/Town, State, Zip

(610) 459-7727
Phone

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # 001 (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 51 - 30277

A. Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).

Bedrock N/A feet below land surface Water N/A feet below land surface

B. Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).

Length of piping N/A feet

C. TANK SYSTEM REMOVED FROM THE GROUND/SITE

1.) Was obvious contamination observed while excavating, sampling or removing the tank system?

☒ NO ------→ Conduct confirmatory sampling ------→ See end of this section for options on submission and maintenance of closure records ------→ Do not complete item C.2. below.

☐ YES ------→ Report release to DEP within 24 hours ----→ Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____

_____

_____

_____ ----→ Complete item C.2. below.

2.) Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

☐ YES ----→ Remove or remediate contaminated soil ----→ Conduct confirmatory sampling ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

☐ NO ----→ Continue Interim Remedial Actions ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE

Was obvious contamination observed during sampling, boring or assessing water depths?

☐ NO ----→ Conduct confirmatory sampling ----→ See end of this section for options on submission and maintenance of closure records.

☐ YES ----→ Report release to DEP within 24 hours ----→ Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____

_____

_____

Continue with corrective action ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

E. If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

(a) By the owners and operators who took the tank system out of service;
(b) By the current owners and operators of the tank system site; or
(c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, GILBERT J. MARSHALL (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.

Gilbert J. Marshall	02 / 10 / 2024
Signature of Person Performing Site Assessment	Date
PRINCIPAL GEOLOGIST	MARSHALL GEOSCIENCE, INC.
Title of Person Performing Site Assessment	Name of Company Performing Site Assessment
(610) 454-1172	
Telephone Number of Person Performing Site Assessment	

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # 002 (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 51 - 30277

A. Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).

Bedrock N/A feet below land surface Water N/A feet below land surface

B. Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).

Length of piping N/A feet

C. TANK SYSTEM REMOVED FROM THE GROUND/SITE

1.) Was obvious contamination observed while excavating, sampling or removing the tank system?

☒ NO ------→ Conduct confirmatory sampling ------→ See end of this section for options on submission and maintenance of closure records ------→ Do not complete item C.2. below.

☐ YES ------→ Report release to DEP within 24 hours ----→ Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____

_____

_____

_____ ----→ Complete item C.2. below.

2.) Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

☐ YES ----→ Remove or remediate contaminated soil ----→ Conduct confirmatory sampling ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

☐ NO ----→ Continue Interim Remedial Actions ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE

Was obvious contamination observed during sampling, boring or assessing water depths?

☐ NO ----→ Conduct confirmatory sampling ----→ See end of this section for options on submission and maintenance of closure records.

☐ YES ----→ Report release to DEP within 24 hours ----→ Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____

_____

_____

Continue with corrective action ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

E. If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

(a) By the owners and operators who took the tank system out of service;
(b) By the current owners and operators of the tank system site; or
(c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, GILBERT J. MARSHALL, hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.

(Print Name)

Gilbert J. Marshall
Signature of Person Performing Site Assessment

02 / 10 / 2024
Date

PRINCIPAL GEOLOGIST
Title of Person Performing Site Assessment

MARSHALL GEOSCIENCE, INC.
Name of Company Performing Site Assessment

(610) 454-1172
Telephone Number of Person Performing Site Assessment

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

SECTION III. Site Assessment Information

Tank Registration # 003 (complete one sheet for EACH tank system and attach ALL laboratory sheets pertaining to that system)

Facility ID Number 51 - 30277

A. Provide depth of *BEDROCK* and *WATER* IF encountered during excavation or soil boring (write "N/A": if NOT encountered).

Bedrock N/A feet below land surface Water N/A feet below land surface

B. Provide Length of *PIPING* IF piping was closed-in-place (write "N/A" if NOT closed-in-place).

Length of piping N/A feet

C. TANK SYSTEM REMOVED FROM THE GROUND/SITE

1.) Was obvious contamination observed while excavating, sampling or removing the tank system?

☐ NO ------→ Conduct confirmatory sampling ------→ See end of this section for options on submission and maintenance of closure records ------→ Do not complete item C.2. below.

☒ YES ------→ Report release to DEP within 24 hours ----→ Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____

_____

_____

_____ ----→ Complete item C.2. below.

2.) Was contamination localized (within three feet of the tank system in every direction with no obvious water contamination)?

☐ YES ----→ Remove or remediate contaminated soil ----→ Conduct confirmatory sampling ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

☒ NO ----→ Continue Interim Remedial Actions ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

D. TANK SYSTEM CLOSED-IN-PLACE OR CHANGED-IN-SERVICE

Was obvious contamination observed during sampling, boring or assessing water depths?

☐ NO ----→ Conduct confirmatory sampling ----→ See end of this section for options on submission and maintenance of closure records.

☐ YES ----→ Report release to DEP within 24 hours ----→ Describe contamination observed and likely source(s) (tank, piping, dispenser, spills, overfills): _____

_____

_____

_____

Continue with corrective action ----→ See end of this section for options on submission and maintenance of closure records ----→ Call Indemnification Fund (717-787-0763).

E. If the answer to C.1. is "no", the answer to C.2. is "yes" or the answer to D. is "no", confirmatory samples are required. Use the sample/analysis information sheet on page 10 of 11 to provide the information on confirmatory sampling and complete the diagram on Page 11 of 11.

Options for Submission and Maintenance of Closure Site Assessment Records

Records of the site assessment must be maintained for at least three years after completion of permanent closure or change-in-service in one of the following ways:

(a) By the owners and operators who took the tank system out of service;
(b) By the current owners and operators of the tank system site; or
(c) By mailing these records to the DEP regional office responsible for the county in which the tank is located if they cannot be maintained at the closed facility.

Where the results of the site assessment indicate that obvious, localized soil contamination was encountered and the analytical results of the confirmatory sampling show levels below the statewide standard/action levels, this closure report form (Sections I, II, and III) or some other acceptable site characterization report must be received by the Department within 180 days of verbally reporting the release.

Where the results of the site assessment indicate that no obvious contamination or obvious, localized contamination was encountered, but the analytical results of the confirmatory sampling show levels above the statewide standard/action levels, or where there is obvious, extensive contamination, Section 245.310(a)(8) of the Corrective Action Process (CAP) regulations requires that details of removal from service be included in the site characterization report. A copy of the completed closure report form should be submitted as part of the site characterization report to satisfy the requirements of Section 245.310(a)(8) of the CAP regulations.

I, GILBERT J. MARSHALL (Print Name), hereby certify, under penalty of law as provided in 18 Pa. C.S. §4904 (relating to unsworn falsification to authorities) that I am the person who performed the site assessment activities associated with the closure of the above referenced storage tank system(s) and that the information provided by me in this closure report (Section III) is true, accurate and complete to the best of my knowledge and belief.

Gilbert J. Marshall
Signature of Person Performing Site Assessment

02 / 10 / 2024
Date

PRINCIPAL GEOLOGIST
Title of Person Performing Site Assessment

MARSHALL GEOSCIENCE, INC.
Name of Company Performing Site Assessment

(610) 454-1172
Telephone Number of Person Performing Site Assessment

SEE TABLE 1
ATTACHMENT 5

UNDERGROUND STORAGE TANK SYSTEM CLOSURE REPORT FORM

Sample/Analysis Information (Attachment for Section III.)

Facility ID Number 51 - 30277

Sample I.D. (See diagram)	Parameter	Analytical Method[1]		Media	Result (units)	Detection Limit (units)	Date Sample Taken	Date Sample Analyzed
							/ /	/ /
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[1] Where EPA Method 5035 is used, indicate sample collection option in the right-hand box of this column using the following codes:

P - Samples placed in a soil sample vial with a preservative present.
E - Samples collected and stored in a soil collection device which is airtight and affords little to no headspace.
N - Samples placed in soil sample vial without a preservative present.

Site Location and Sampling Map - Use this page or suitable facsimile to provide a large-scale map of the site where storage tank systems were closed. Scales between 1" = 10 and 1" = 100 feet frequently work well. Include the following information as each applies to the site: facility name and I.D., county, township or borough, property boundaries or area of interest, buildings, roads and streets with names or route numbers, utilities, location and ID number of storage tank systems removed including piping and dispensers, soil stockpile locations, excavations or other locations of product recovery, north arrow, approximate map scale and legend. Also, show depth and location of samples with sample ID numbers cross-referenced to the same ID numbers shown on Page 10 of 11.

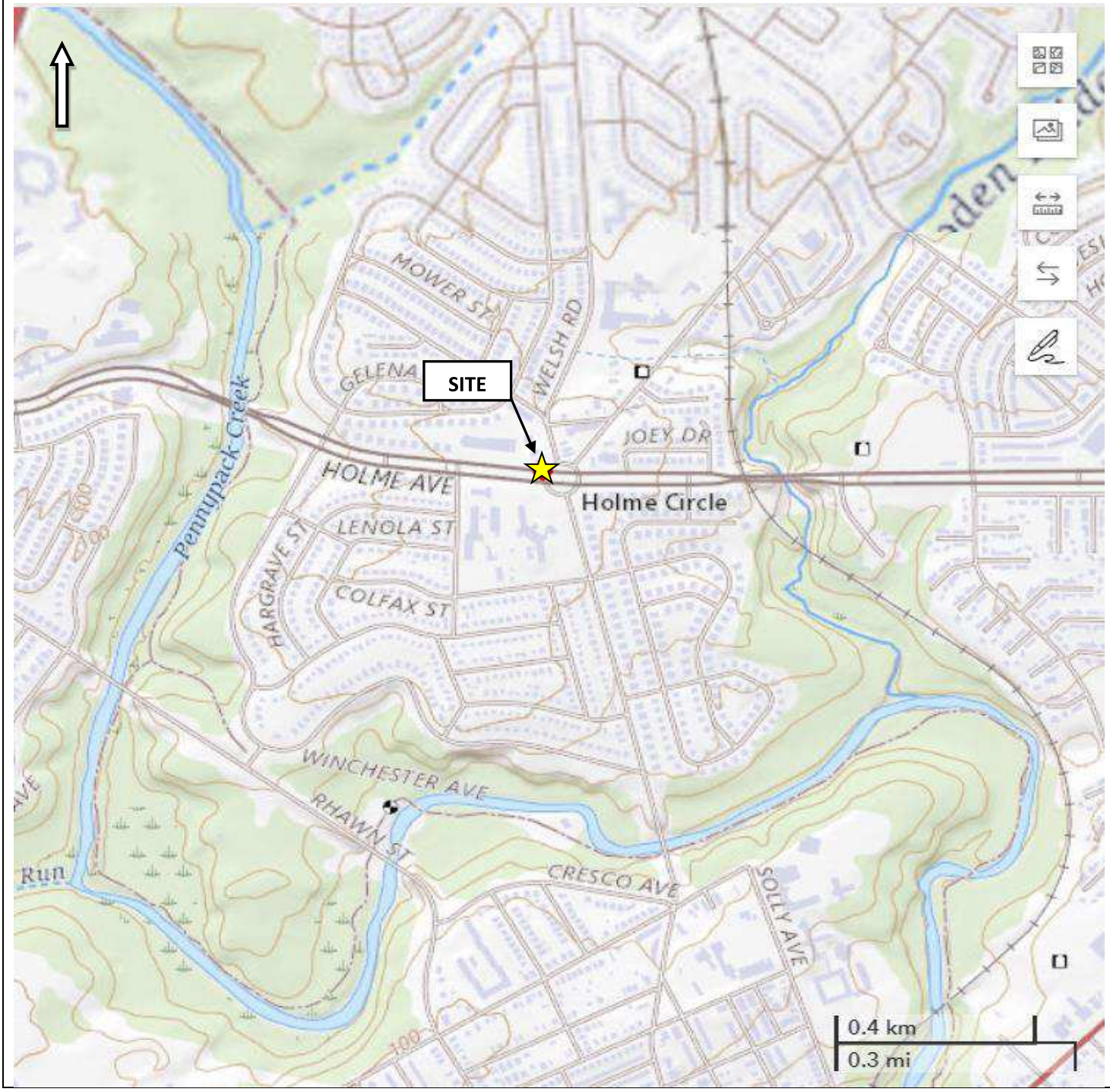
Facility Name and ID: 51 - 30277

County: PHILADELPHIA

Township/Borough: PHILADELPHIA CITY

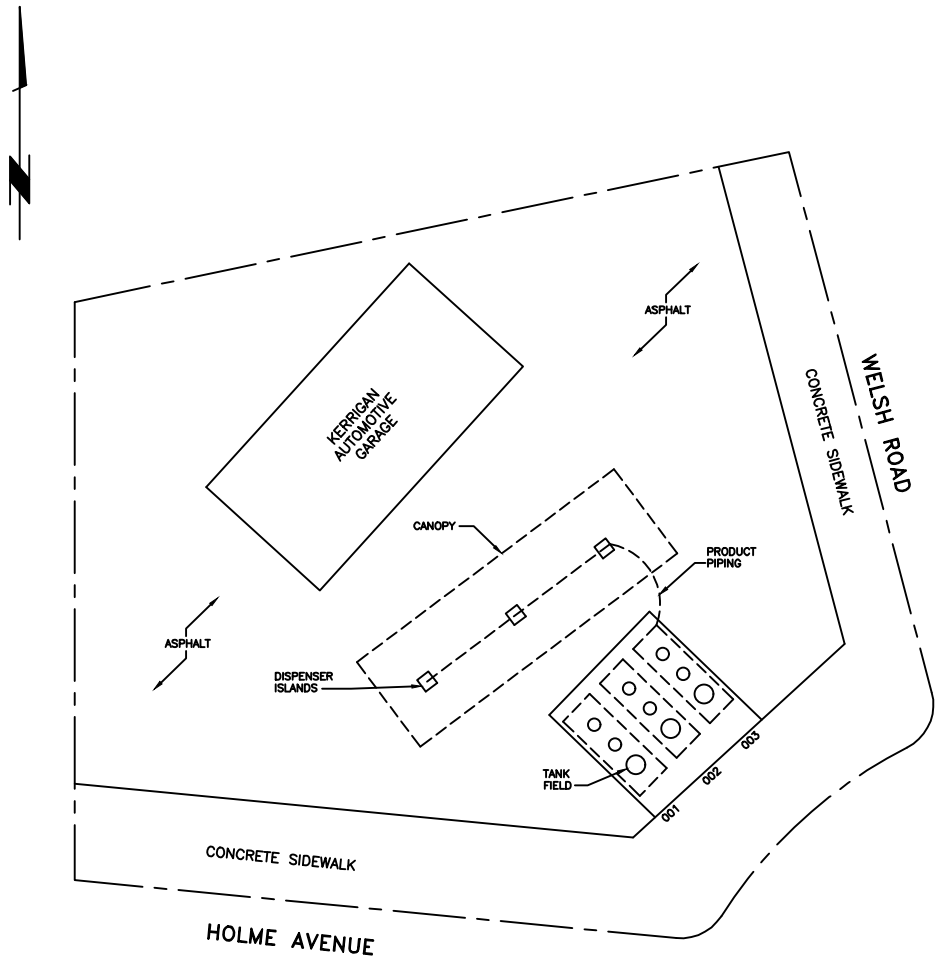
SEE FIGURES 1 THROUGH 3
TABLE 1

FIGURES

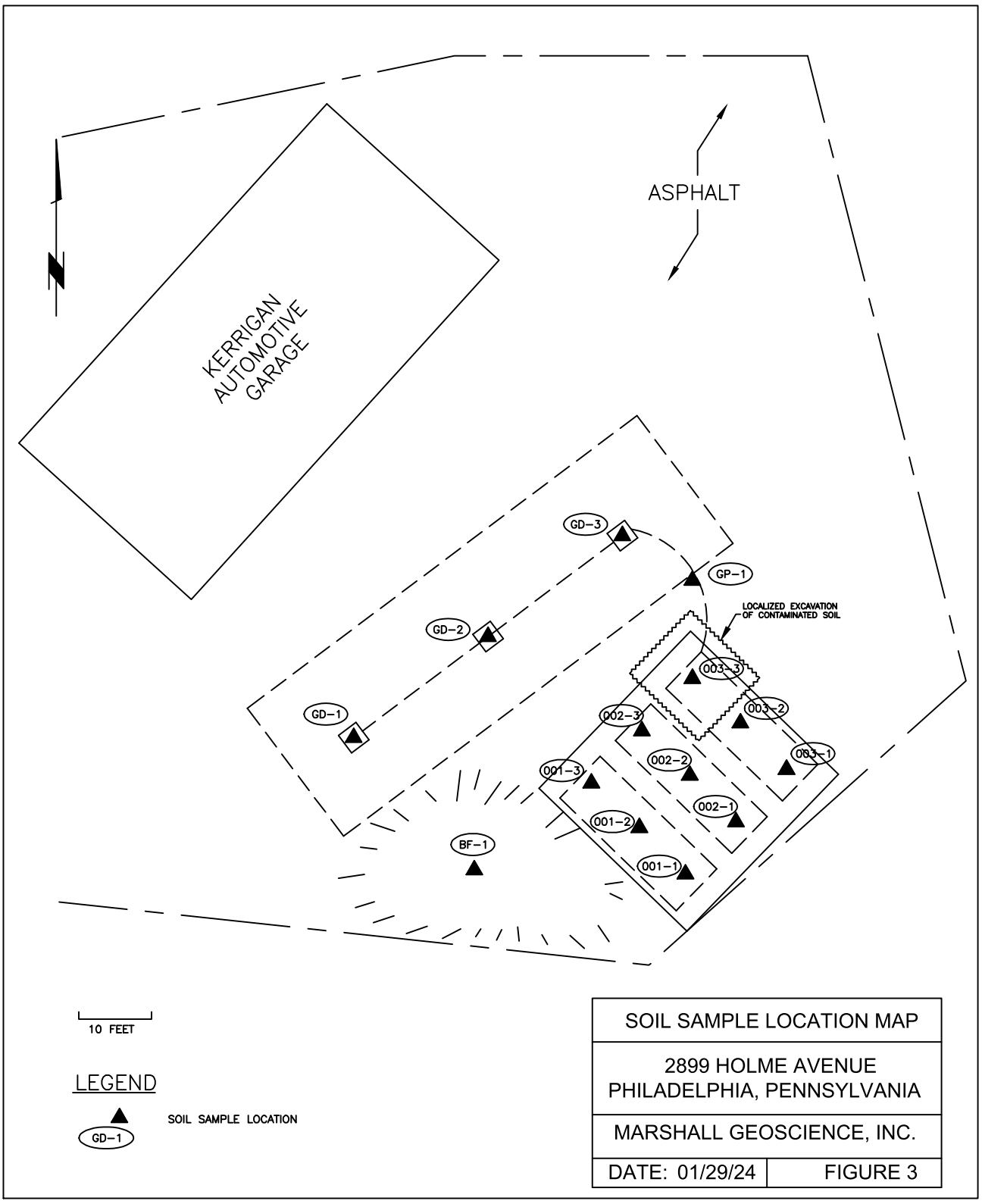


Source: PA Geode, USGS Topographic Map
Contour Interval = 10 feet

SITE LOCATION MAP		
GATZ AUTO 2899 Holme Avenue Philadelphia, Pennsylvania		
MARSHALL GEOSCIENCE, INC.		
DATE: 01/28/24	SCALE: As Shown	FIGURE 1



SITE FEATURES MAP	
2899 HOLME AVENUE PHILADELPHIA, PENNSYLVANIA	
MARSHALL GEOSCIENCE, INC.	
DATE: 01/28/24	FIGURE 2



SOIL SAMPLE LOCATION MAP	
2899 HOLME AVENUE PHILADELPHIA, PENNSYLVANIA	
MARSHALL GEOSCIENCE, INC.	
DATE: 01/29/24	FIGURE 3

TABLES

TABLE 1

SUMMARY OF ANALYTICAL RESULTS

CLOSURE ASSESSMENT SOIL SAMPLES
GASOLINE UST SYSTEMS 001, 002 AND 003

GATZ AUTO
Facility ID No. 51-30277
2899 Holme Avenue
Philadelphia, Pennsylvania

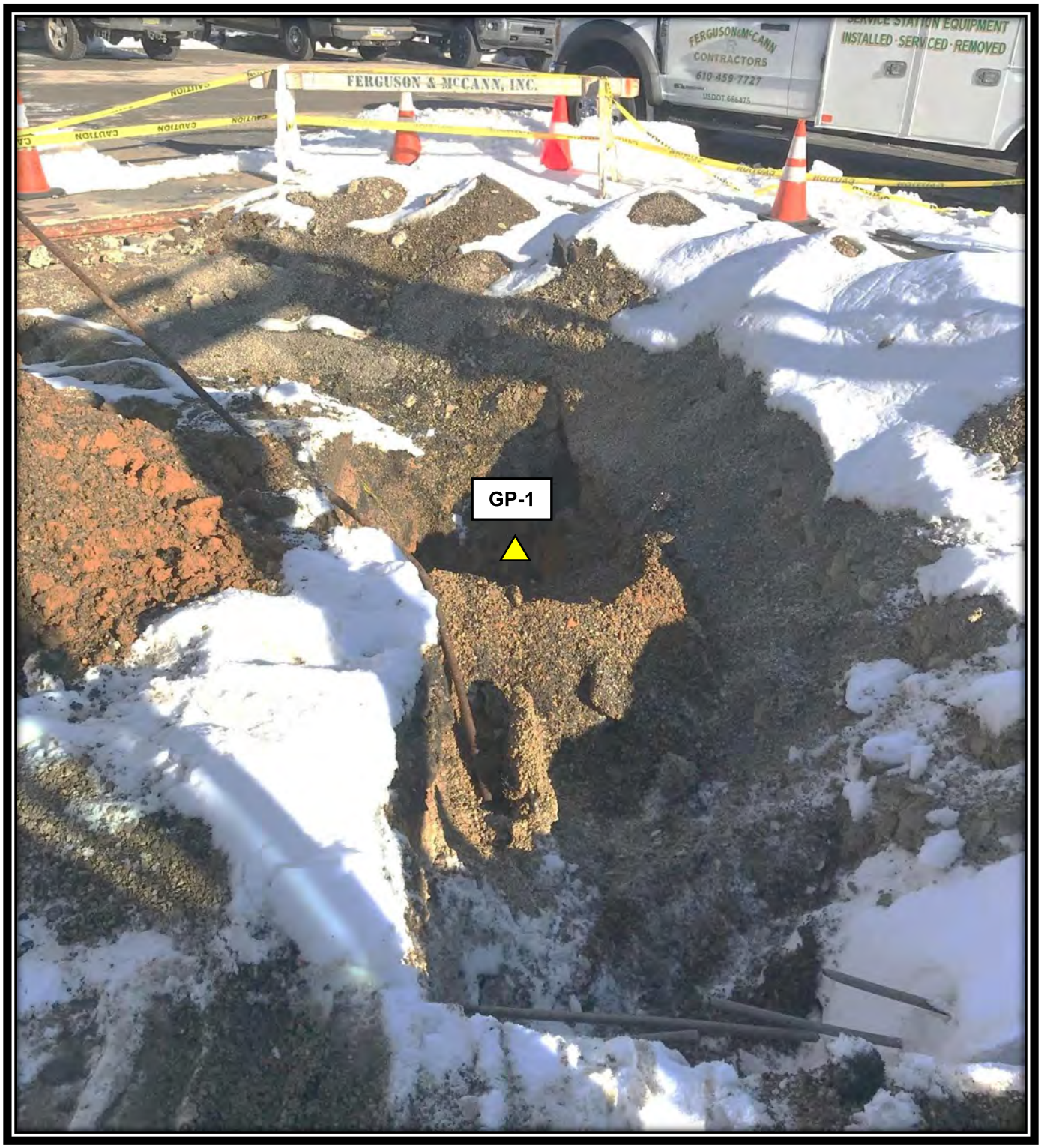
		UST 001			UST 002			UST 003			PRODUCT DISPENSERS			PRODUCT PIPING	BACKFILL		
SAMPLE		001-1	001-2	001-3	002-1	002-2	002-3	003-1	003-2	003-3	GD-1	GD-2	GD-3	GP-1	BF-1	PADEP MSCs	
Date		01/26/2024	01/26/2024	01/26/2024	01/26/2024	01/26/2024	01/26/2024	01/25/2024	01/25/2024	01/29/2024	01/22/2024	01/22/2024	01/22/2024	01/22/2024	01/26/2024	Soil to Ground Water	Direct Contact Non-Residential
Depth	feet	13	13	13	13	13	13	13	13	16	3	3	3	3	0-11	(Used, Non-Res)	(2-15 feet)
PID	ppm	ND	0.7	4.2	6.2	4.3	7.6	0.4	9.6	1,569	ND	1.7	2.2	ND	3.1		
Benzene	mg/kg	0.011 J	<0.0087	0.0099 J	<0.0081	0.037 J	0.063	0.011	0.012 J	**66**	<0.0092	<0.0091	<0.01	<0.009	<0.0099	**0.5**	**330**
Ethylbenzene	mg/kg	<0.012	<0.013	<0.011	<0.012	<0.012	0.037 J	<0.013	<0.012	**120**	<0.014	<0.014	<0.016	<0.013	<0.015	**70**	**1,000**
Isopropylbenzene	mg/kg	<0.012	<0.014	<0.012	<0.013	<0.012	<0.013	<0.013	<0.013	10	<0.015	<0.014	<0.017	<0.014	<0.016	**2,500**	**10,000**
Methyl Tertiary Butyl Ether	mg/kg	<0.0082	<0.0092	<0.0082	<0.0086	<0.0082	<0.0089	<0.009	<0.0086	<0.42	<0.0098	<0.0097	<0.011	<0.0096	<0.01	**2**	**9,800**
Naphthalene	mg/kg	<0.034	<0.038	<0.034	<0.035	<0.034	<0.036	<0.037	<0.035	11	<0.04	<0.04	<0.045	<0.039	<0.043	**25**	**77**
Toluene	mg/kg	<0.056	<0.011	<0.052	0.041	0.22	0.2	0.051	0.032 J	**640**	<0.011	0.02 J	<0.013	<0.011	0.027 J	**100**	**10,000**
1,2,4-Trimethylbenzene	mg/kg	<0.0088	<0.0099	<0.0088	<0.0093	<0.0089	0.029 J	<0.0097	<0.0093	210	<0.011	0.013 J	<0.012	<0.01	<0.011	**300**	**5,400**
1,3,5-Trimethylbenzene	mg/kg	<0.0096	<0.011	<0.0095	<0.01	<0.0096	0.014 J	<0.011	<0.01	55	<0.011	<0.011	<0.013	<0.011	<0.012	**93**	**5,400**
Xylenes	mg/kg	0.014 J	<0.012	<0.018 J	<0.011	0.057 J	0.14	<0.012	<0.011	790	<0.013	0.028 J	<0.014	<0.013	<0.014	**1,000**	**9,100**

Notes:
All concentrations reported in mg/kg on a dry-weight basis.
Bold and highlighted type indicates concentration exceeds a regulatory agency standard.

PADEP Medium-Specific Concentrations (MSCs) published in the Land Recycling and Environmental Remediation Standards Act (Act 2), Pennsylvania Bulletin, November 20, 2021

PHOTOGRAPHS

View of Product Dispenser Areas.

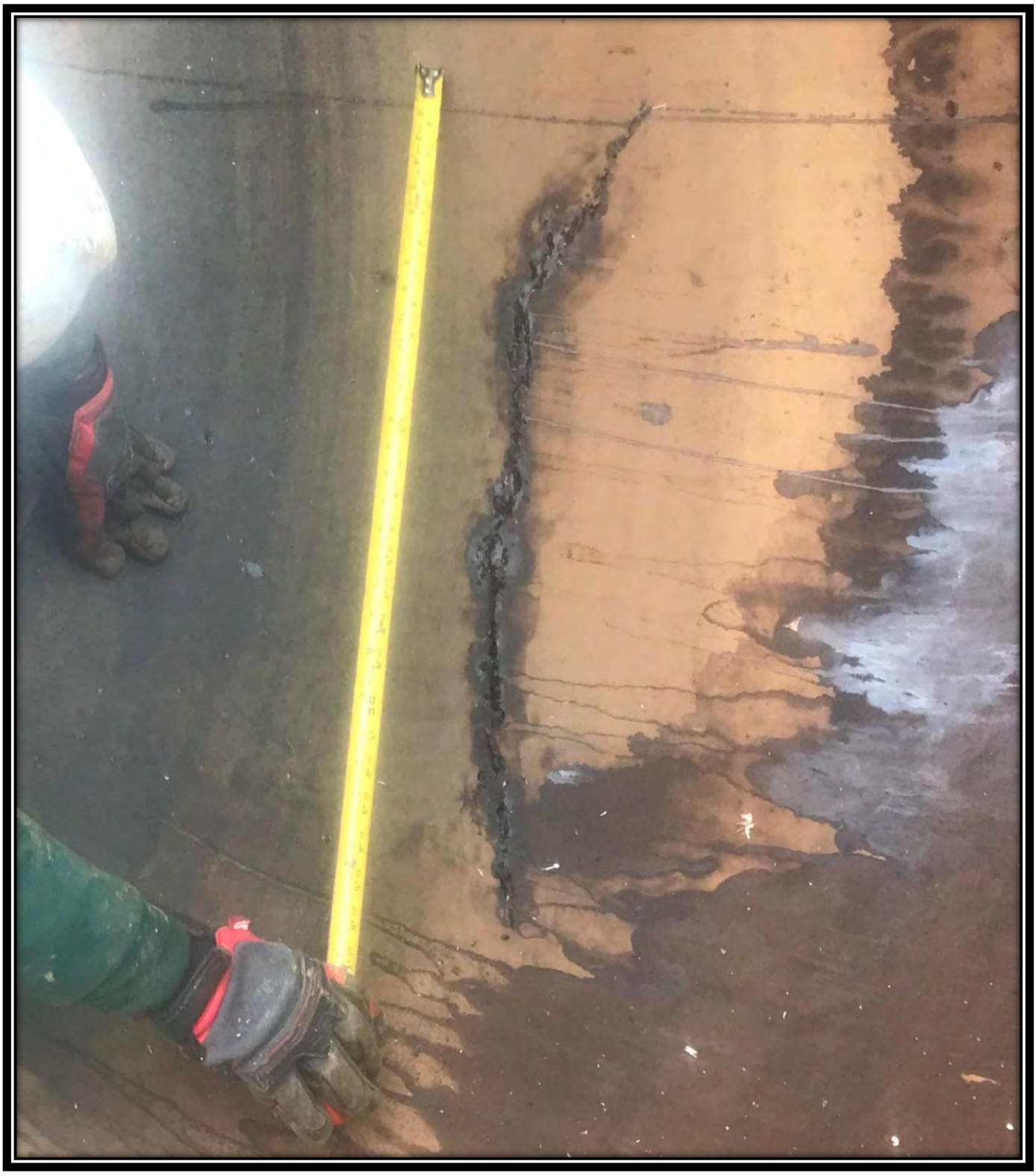


View of Product Piping Trench from Tank Field to Product Dispensers.

Removing UST 001.

Removing UST 002.

Crack at North End of UST 002.
No Evidence of a Release.



Interior View UST 002 Crack.

Removing UST 003.

Crack at North End of UST 003.
Evidence of a Release Observed.

Interior View of Crack in UST 003.

ATTACHMENT 1

DISPOSAL/RECYCLING DOCUMENTATION

RESIDUAL LIQUID WASTE – TANK CLEANING

Miller Env. Group

164 Route 45
Mannington, NJ 08079

Conoco Station
2899 Holme Ave
Phila PA

Site: Job Site - Closed Station
2899 Holmes Rd
Philadelphia PA

BOL 455431

Transporter 1 Company Name	US EPA ID Number	Transporter's Phone
Miller Environmental Group	NYD986908065	856-769-9022

Designated Facility name and Site Address	US EPA ID Number	Facility's Phone
Miller Environmental Recycling 108 East Lake Rd Woodstown, NJ 08098	NJD011281174	856-769-9022

US DOT Description (including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group	Containers No.	Containers Type	Total Quantity	Unit Wt/Vol
Petroleum contaminated liquids	___	CM	______	P/Y
NRCR	___	DM		P
non HAZ/non-DOT regulated	001	TT	750	G

Additional Descriptions for Materials Listed Above
ERG#________
24-Hr Emergency Phone: (800)394-9006

Tank cleaning / Liquid Disposal

GENERATOR'S CERTIFICATION: I herby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and are non-hazardous by US EPA and applicable state regulations

Printed/Typed Name: x David Diaz
Signature: x [signature]
Month / Day / Year: 11/15/12

Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: x Antonio Green
Signature: x [signature]
Month / Day / Year: 11/15/12

Facility Owner or Operator: Certification of Receipt of Above Listed Materials
Printed/Typed Name: x
Signature: x
Month / Day / Year: / /

LOADING INFORMATION
Start Time: ________
Arrival Time: 8:30
Depart Time: 10:00
Finish Time: ________

Bill To: Ferguson & McCann
270 Bodley Road
Aston Pa 19014

PO #________

Special Instructions

Onsite 8-8:30 to vac gas tank bottoms
Ord by John 610-517-7871

ATTACHMENT 2

DISPOSAL/RECYCLING DOCUMENTATION

SOLID WASTE – TANKS, PIPING AND DISPENSERS

Delaware County Solid Waste Auth

Plant # 1
1521 North Providence Road
Media, PA 19063
(610) 892-9620

Trans# 1019200 Acct# < 166 >

Acct: Ferguson & McCann Inc.

CUSTOMER COPY

Truck# C3319 Trailer#

---DATE---	--TIME--	Site: P1
IN: 1/26/2024	2:36:47 PM	Dir: IN
OUT:1/26/2024	2:49:04 PM	WMID: RIK

Certificat85227
Transac: 1 Disposal-Permit
Payment: 1 Charge
Vehicle: 4 30 Yd. Rolloff
Origin: 2 Delaware County
Material: 15 Commercial Waste-RT
Destin: 2 Plant #1

	Pounds	Tons	
Gross Wt	38,320	19.16	A Scale
Tare Wt	35,120	17.56	B Scale
Net Wt	3,200	1.60	

Tmemo: C3319

Sign: _____

Remark:

CONOCO SITE
2899 HOLME AVE
PHILA PA

DISPOSAL
TRUCKS, LINES, ISLANDS, SUMPS
ALL ASSOCIATED CONTAMINATED
MATERIALS

Conoco Tank Disposal

Delaware County Solid Waste Auth

Plant # 1
1521 North Providence Road
Media, PA 19063
(610) 892-9620

Trans# 1019158 Acct# < 166 >

Acct: Ferguson & McCann Inc.

CUSTOMER COPY

Truck# C3319 Trailer#

---DATE---	--TIME--	Site: P1
IN: 1/26/2024	12:11:17 PM	Dir: IN
OUT:1/26/2024	12:26:46 PM	WMID: RIK

Certificat85227
Transac: 1 Disposal-Permit
Payment: 1 Charge
Vehicle: 4 30 Yd. Rolloff
Origin: 2 Delaware County
Material: 15 Commercial Waste-RT
Destin: 2 Plant #1

	Pounds	Tons	
Gross Wt	42,280	21.14	A Scale
Tare Wt	35,460	17.73	B Scale
Net Wt	6,820	3.41	

Tmemo: C3319

Sign: _____

Remark:

ATTACHMENT 3

GASOLINE-IMPACTED SOIL DISPOSAL/RECYCLING DOCUMENTATION

SOIL SAFE, INC. – LOGAN TOWNSHIP, NEW JERSEY

Tonnages for L5-3558 by Date, Log Number

From 1/1/2024 To 12/31/2024

Date	Log #	Truck Number	Truck Company	City	Batch#	Net
L5-3558						
			3/14/2024			
3/14/2024	18	284	TAT		2778	26.58
3/14/2024	40	284	TAT		2779	30.61
	Total volume for Date = 3/14/2024 (2 detail records)		57.19	Average Weight:	28.595	
Total Volume for Approval Number' = L5-3558 (2 detail records)					57.19	
Total Trucks: 2						
Grand Total				57.19		

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Ferguson & McCann
Address Bodley Rd. Aston PA
Phone No. 610 459-7727

Generator Site/Location Kerigan Auto
Address 2899 Holme Ave
Philadelphia P.A
Phone No.

Approval Number 3558

Description of Material
Non-Regulated Petroleum
Contaminated Soil
ton
Non DOT/RCRA Regulated

ID 284
GROSS 40.40 short GROSS
TARE 13.82 short TARE
NET 26.58 short NET
LOG 18
03/14/2024
09:55AM
TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Chris McKenna — Generator Authorized Agent Name
Signature
Shipment Date

TRANSPORTER

Transporter Name Woolwich SFC
Address 2306 Oldmans Creek Rd
Woolwich Twp
Driver Name (Print) Bill
Vehicle License No. / State / EPA No. AW352W NJS
Truck Number W26 SS 284

I hereby certify that the above named material was picked up at the generator site listed above.

Bill — Driver Signature
14 MAR 24 — Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Bill — Driver Signature
14 MAR 24 — Delivery Date

DESTINATION

Site Name **Soil Safe, Inc. - Bridgeport**
Phone No. **1-856-467-8030**
Address **378 Route 130 Logan Township, NJ 08085**
No left turn on Rt. 130 North into the facility.
Business hours are: Monday through Friday 7 AM to 5 PM. 5 PM to 10 PM By Appointment only. Saturday by appointment only.

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

L Garcia — Name of Authorized Agent
Signature
3/14/24 — Receipt Date

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

Log Number

SOIL SAFE, INC.

NON-HAZARDOUS MATERIAL MANIFEST

GENERATOR

Generator Name Ferguson & McCann Generator Site/Location Kerrigan Auto

Address Bodley Rd. Aston PA Address 2899 Holme Ave

Philadelphia PA

Phone No. 610 459 7727 Phone No.

Description of Material ton

Approval Number 3558

Non-Regulated Petroleum Contaminated Soil ton RECALLED

Non DOT/RCRA Regulated

ID 284
GROSS 44.43 short GROSS
TARE 13.82 short TARE
NET 30.61 short NET
LOG 40
03/14/2024 12:47PM
TONNAGE

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name Signature Shipment Date

TRANSPORTER

Transporter Name Woolwich S46 Driver Name (Print) BM

Address 2306 Oldmans Creek Rd Vehicle License No. / State / EPA No. AW352W NJ

Woolwich Twp Truck Number W26 SS 284

I hereby certify that the above named material was picked up at the generator site listed above.

BM 14 Mar 24

Driver Signature Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

BM 14 mar 24

Driver Signature Delivery Date

DESTINATION

Site Name **Soil Safe, Inc. - Bridgeport** Phone No. **1-856-467-8030**

Address **378 Route 130 Logan Township, NJ 08085**

No left turn on Rt. 130 North into the facility.

Business hours are: Monday through Friday 7 AM to 5 PM. 5 PM to 10 PM By Appointment only. Saturday by appointment only.

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent Signature Receipt Date

d Garcia 3 14 24

White - Facility Green - Facility Yellow - Generator Pink - Broker Goldenrod - Contractor Blue - Trucking Co.

ATTACHMENT 4

DISPOSAL/RECYCLING DOCUMENTATION

SOLID WASTE – CONCRETE

Concrete/Asphalt Disposal
Conoco Station
2899 Hulme Ave
Phila PA

INVOICE

0719

BLUE MOUNTAIN MULCH

(610) 558-3294 ♦ Aston, PA

TO Ferguson & McIlvaine
270 Bullard ND
Aston PA 19014

PHONE # 610-459-7727

DATE ORDERED

DATE REQUESTED

SALES REP

PO #

MATERIAL DESCRIPTION	QTY	PRICE	MATERIAL DESCRIPTION	QTY	PRICE	AMOUNT
Black Dyed Hardwood Mulch			Top Soil Screened			
Brown Dyed Hardwood Mulch			Unscreened Top Soil			
Triple Shredded Organic Mulch			Amended Soil			
Red Dyed Hardwood Mulch			Compost			
Playground Mulch			Fill Dirt			
3/4" Clean Stone			2A Modified			
River Rock 1-3" 3-6"			Recycled Concrete			
			Delivery Fee			

DUMP - DESCRIPTION

	Chips	Mixed	Leaves	Logs	Concrete Clean	Concrete Rebar	Delivery		Pick Up	
Pickup Tk										
12' Dump Tk										
16' Dump Tk										
Dumpster										
Dump Trailer										
Tri Axle 6					6	LOADS				
Log Truck										

Signature: Mike Zeg

Sub Total	
Tax 6%	
Total	

THANK YOU CUSTOMER ACCT ☐ CHECK ☐ CREDIT CARD ☐

Blue Mountain Mulch, LLC will not be responsible for any damage beyond the curb line.

Gill Quarries, Inc.
P.O. Box187
Fairview Village, PA, 19409

Ticket #: 944022
Date: 01/24/2024 12:21 PM
Phone: (610) 584-6061
Fax: (610) 584-0250

Customer: FERGUSON_MCCAN - Ferguson & McCann Inc.
270 Bodley Road
Aston PA, 19014
(610) 459-7727

Order Number: BOLMAR-ST-1100
Tons: 0.000
Loads: 4

STREET,WEST
CHESTER PA
1100 N BOLMAR STREET
39.96475178579147, -75.5950969

Truck: FERGMC58 -
DANIELA - LIC # 95423
Remarks: 2022 Pricing is now in effect.

Material	Gross	Scale	Tare	Scale	Net
Tri-axle Concrete (Dump Fee)	0	0	0	STORED	0

Material	Quantity	Price	Material $	Delivery $	Misc $	Tax $	Line Total $
Tri-axle Concrete (Dump Fee)	1.000 EA						

Scale Master: DANIELA - LIC # 95423

Signature

Note: Gill Quarries is not responsible for deliveries beyond the pavement.

Gill Quarries, Inc.
P.O. Box187
Fairview Village, PA, 19409

Ticket #: 944022
Date: 01/24/2024 12:21 PM
Phone: (610) 584-6061
Fax: (610) 584-0250

Customer: FERGUSON_MCCAN - Ferguson & McCann Inc.
270 Bodley Road
Aston PA, 19014
(610) 459-7727

Order Number: BOLMAR-ST-1100
Tons: 0.000
Loads: 4

STREET,WEST
CHESTER PA
1100 N BOLMAR STREET
39.96475178579147, -75.5950969

Truck: FERGMC58 -
DANIELA - LIC # 95423
Remarks: 2022 Pricing is now in effect.

Material	Gross	Scale	Tare	Scale	Net
Tri-axle Concrete (Dump Fee)	0	0	0	STORED	0

Material	Quantity	Price	Material $	Delivery $	Misc $	Tax $	Line Total $
Tri-axle Concrete (Dump Fee)	1.000 EA						

Scale Master: DANIELA - LIC # 95423

Signature

Note: Gill Quarries is not responsible for deliveries beyond the pavement.

ATTACHMENT 5

LABORATORY REPORT

UST CLOSURE ASSESSMENT
CONFIRMATION SOIL SAMPLES

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Marshall
Marshall Geoscience
170 East First Avenue
Collegeville, Pennsylvania 19426

Generated 1/29/2024 9:12:31 AM

JOB DESCRIPTION

019333

JOB NUMBER

460-296847-1

Eurofins Edison
777 New Durham Road
Edison NJ 08817

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
1/29/2024 9:12:31 AM

Authorized for release by
Jill Miller, Senior Project Manager
Jill.Miller@et.eurofinsus.com
(484)802-0929

Table of Contents

Definitions/Glossary

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-296847-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job Narrative
460-296847-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/23/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

Method 8260D - Volatile Organic Compounds by GC/MS
Samples GD-1 (296847-1), GD-2 (296847-2), GD-3 (296847-3) and GP-1 (296847-4) were analyzed for Volatile Organic Compounds by GC/MS. The samples were prepared on 1/25/2024 and analyzed on 1/26/2024 and 1/27/2024.

Method Moisture - Percent Moisture
Samples GD-1 (296847-1), GD-2 (296847-2), GD-3 (296847-3) and GP-1 (296847-4) were analyzed for Percent Moisture. The samples were analyzed on 1/24/2024.

Client Sample ID: GD-1

Lab Sample ID: 460-296847-1

Date Collected: 01/22/24 09:54
Matrix: Solid
Date Received: 01/23/24 19:00
Percent Solids: 85.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	9.2	U	46	9.2	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50
Toluene	11	U	46	11	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50
Ethylbenzene	14	U	46	14	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50
Xylenes, Total	13	U	91	13	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50
MTBE	9.8	U	46	9.8	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50
Naphthalene	40	U	46	40	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50
1,2,4-Trimethylbenzene	11	U	46	11	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50
1,3,5-Trimethylbenzene	11	U	46	11	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50
Isopropylbenzene	15	U	46	15	ug/Kg	☼	01/25/24 17:59	01/27/24 12:36	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*68 - 150*	*01/25/24 17:59*	*01/27/24 12:36*	*50*
Toluene-d8 (Surr)	*115*		*73 - 147*	*01/25/24 17:59*	*01/27/24 12:36*	*50*
Bromofluorobenzene	*123*		*70 - 141*	*01/25/24 17:59*	*01/27/24 12:36*	*50*
Dibromofluoromethane (Surr)	*110*		*68 - 142*	*01/25/24 17:59*	*01/27/24 12:36*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**14.5**		1.0	1.0	%			01/24/24 16:57	1
Percent Solids (EPA Moisture)	**85.5**		1.0	1.0	%			01/24/24 16:57	1

Client Sample ID: GD-2

Lab Sample ID: 460-296847-2

Date Collected: 01/22/24 10:04
Matrix: Solid
Date Received: 01/23/24 19:00
Percent Solids: 92.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	9.1	U	45	9.1	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50
Toluene	**20**	**J**	45	11	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50
Ethylbenzene	14	U	45	14	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50
Xylenes, Total	**28**	**J**	90	13	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50
MTBE	9.7	U	45	9.7	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50
Naphthalene	40	U	45	40	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50
1,2,4-Trimethylbenzene	**13**	**J**	45	10	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50
1,3,5-Trimethylbenzene	11	U	45	11	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50
Isopropylbenzene	14	U	45	14	ug/Kg	☼	01/25/24 17:59	01/27/24 13:01	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 150*	*01/25/24 17:59*	*01/27/24 13:01*	*50*
Toluene-d8 (Surr)	*110*		*73 - 147*	*01/25/24 17:59*	*01/27/24 13:01*	*50*
Bromofluorobenzene	*103*		*70 - 141*	*01/25/24 17:59*	*01/27/24 13:01*	*50*
Dibromofluoromethane (Surr)	*96*		*68 - 142*	*01/25/24 17:59*	*01/27/24 13:01*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**7.5**		1.0	1.0	%			01/24/24 16:57	1
Percent Solids (EPA Moisture)	**92.5**		1.0	1.0	%			01/24/24 16:57	1

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-296847-1

Client Sample ID: GD-3

Lab Sample ID: 460-296847-3

Date Collected: 01/22/24 10:16
Date Received: 01/23/24 19:00

Matrix: Solid
Percent Solids: 81.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	10	U	52	10	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50
Toluene	13	U	52	13	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50
Ethylbenzene	16	U	52	16	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50
Xylenes, Total	14	U	100	14	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50
MTBE	11	U	52	11	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50
Naphthalene	45	U	52	45	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50
1,2,4-Trimethylbenzene	12	U	52	12	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50
1,3,5-Trimethylbenzene	13	U	52	13	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50
Isopropylbenzene	17	U	52	17	ug/Kg	☼	01/25/24 18:00	01/27/24 13:26	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*68 - 150*	*01/25/24 18:00*	*01/27/24 13:26*	*50*
Toluene-d8 (Surr)	*120*		*73 - 147*	*01/25/24 18:00*	*01/27/24 13:26*	*50*
Bromofluorobenzene	*126*		*70 - 141*	*01/25/24 18:00*	*01/27/24 13:26*	*50*
Dibromofluoromethane (Surr)	*113*		*68 - 142*	*01/25/24 18:00*	*01/27/24 13:26*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**18.3**		1.0	1.0	%			01/24/24 16:57	1
Percent Solids (EPA Moisture)	**81.7**		1.0	1.0	%			01/24/24 16:57	1

Client Sample ID: GP-1

Lab Sample ID: 460-296847-4

Date Collected: 01/22/24 10:23
Date Received: 01/23/24 19:00

Matrix: Solid
Percent Solids: 82.3

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	9.0	U	45	9.0	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50
Toluene	11	U	45	11	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50
Ethylbenzene	13	U	45	13	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50
Xylenes, Total	13	U	89	13	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50
MTBE	9.6	U	45	9.6	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50
Naphthalene	39	U	45	39	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50
1,2,4-Trimethylbenzene	10	U	45	10	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50
1,3,5-Trimethylbenzene	11	U	45	11	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50
Isopropylbenzene	14	U	45	14	ug/Kg	☼	01/25/24 18:00	01/26/24 16:17	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*68 - 150*	*01/25/24 18:00*	*01/26/24 16:17*	*50*
Toluene-d8 (Surr)	*122*		*73 - 147*	*01/25/24 18:00*	*01/26/24 16:17*	*50*
Bromofluorobenzene	*132*		*70 - 141*	*01/25/24 18:00*	*01/26/24 16:17*	*50*
Dibromofluoromethane (Surr)	*126*		*68 - 142*	*01/25/24 18:00*	*01/26/24 16:17*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**17.7**		1.0	1.0	%			01/24/24 16:57	1
Percent Solids (EPA Moisture)	**82.3**		1.0	1.0	%			01/24/24 16:57	1

Lab Chronicle

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-296847-1

Client Sample ID: GD-1 — **Lab Sample ID: 460-296847-1**
Date Collected: 01/22/24 09:54 — **Matrix: Solid**
Date Received: 01/23/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	956219	CJC	EET EDI	01/24/24 16:57

Client Sample ID: GD-1 — **Lab Sample ID: 460-296847-1**
Date Collected: 01/22/24 09:54 — **Matrix: Solid**
Date Received: 01/23/24 19:00 — **Percent Solids: 85.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			956434	MXW	EET EDI	01/25/24 17:59
Total/NA	Analysis	8260D		50	956700	MZS	EET EDI	01/27/24 12:36

Client Sample ID: GD-2 — **Lab Sample ID: 460-296847-2**
Date Collected: 01/22/24 10:04 — **Matrix: Solid**
Date Received: 01/23/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	956219	CJC	EET EDI	01/24/24 16:57

Client Sample ID: GD-2 — **Lab Sample ID: 460-296847-2**
Date Collected: 01/22/24 10:04 — **Matrix: Solid**
Date Received: 01/23/24 19:00 — **Percent Solids: 92.5**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			956434	MXW	EET EDI	01/25/24 17:59
Total/NA	Analysis	8260D		50	956700	MZS	EET EDI	01/27/24 13:01

Client Sample ID: GD-3 — **Lab Sample ID: 460-296847-3**
Date Collected: 01/22/24 10:16 — **Matrix: Solid**
Date Received: 01/23/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	956219	CJC	EET EDI	01/24/24 16:57

Client Sample ID: GD-3 — **Lab Sample ID: 460-296847-3**
Date Collected: 01/22/24 10:16 — **Matrix: Solid**
Date Received: 01/23/24 19:00 — **Percent Solids: 81.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			956434	MXW	EET EDI	01/25/24 18:00
Total/NA	Analysis	8260D		50	956700	MZS	EET EDI	01/27/24 13:26

Client Sample ID: GP-1 — **Lab Sample ID: 460-296847-4**
Date Collected: 01/22/24 10:23 — **Matrix: Solid**
Date Received: 01/23/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	956219	CJC	EET EDI	01/24/24 16:57

Lab Chronicle

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-296847-1

Client Sample ID: GP-1
Date Collected: 01/22/24 10:23
Date Received: 01/23/24 19:00

Lab Sample ID: 460-296847-4
Matrix: Solid
Percent Solids: 82.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			956434	MXW	EET EDI	01/25/24 18:00
Total/NA	Analysis	8260D		50	956526	MZS	EET EDI	01/26/24 16:17

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-296847-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	02-29-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-296847-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET EDI
5035	Closed System Purge and Trap	SW846	EET EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-296847-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-296847-1	GD-1	Solid	01/22/24 09:54	01/23/24 19:00
460-296847-2	GD-2	Solid	01/22/24 10:04	01/23/24 19:00
460-296847-3	GD-3	Solid	01/22/24 10:16	01/23/24 19:00
460-296847-4	GP-1	Solid	01/22/24 10:23	01/23/24 19:00

Chain of Custody Record

659086

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Address _____

Regulatory Program ☐ DW ☐ NPDES ☐ RCRA ☒ Other PADEP

TAL-8210

Client Contact	Project Manager: GIL MARSHALL	Site Contact: GIL MARSHALL	Date	COC No:
Company Name: MARSHALL GEOSCIENCE	Tel/Email 610-454-1172	Lab Contact: JILL MILLER	Carrier:	1 of 1 COCs
Address: 170 1ST AVENUE	Analysis Turnaround Time			Sampler: GIL MARSHALL
City/State/Zip: COLLEGEVILLE, PA 19426	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 610-454-1172	TAT if different from Below _____			Walk-in Client:
Fax:	☒ 2 weeks			Lab Sampling:
Project Name: 019333	☐ 1 week			
Site: 019333	☐ 2 days			Job / SDG No 296847
PO # 019333	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	PADEP LIST SHORT LIST	UNLEADED GASOLINE	Sample Specific Notes:
GD-1	1/22/24	0954	G	SOIL	2				X	-1
GD-2	1/22/24	1004	G	SOIL	2				X	-2
GD-3	1/22/24	1016	G	SOIL	2				X	-3
GP-1	1/22/24	1023	G	SOIL	2				X	-4

460-296847 Chain of Custody

Preservation Used 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temp. (°C): Obs'd._____ Corr'd._____ | Therm ID No._____

Relinquished by:	Company: MARSHALL GEOSCIENCE	Date/Time:	Received by:	Company: EETN-KOP	Date/Time: 1/23/24 739
Relinquished by:	Company: EETN-KOP 17 53	Date/Time: 1-23-24	Received by:	Company: EPA	Date/Time: 1/23
Relinquished by:	Company: EPA	Date/Time: 1/23 1900	Received in Laboratory by:	Company:	Date/Time: 1/23/24 1900

1/29/2024

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Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 296947

Number of Coolers: 1 IR Gun # KQ-2

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.0 °C	2.1 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3	°C	°C	Cooler #6:	°C	°C	Cooler #9	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted _____

Preservative Name/Conc. _____ Volume of Preservative used (ml) _____

Lot # of Preservative(s). _____ Expiration Date. _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials HS Date 1/23/24

Login Sample Receipt Checklist

Client: Marshall Geoscience

Job Number: 460-296847-1

Login Number: 296847

List Source: Eurofins Edison

List Number: 1

Creator: Lysy, Susan

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

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1 2 3 4 5 6 7 8 9 10 11

ANALYTICAL REPORT

PREPARED FOR

Attn: Gilbert Marshall
Marshall Geoscience
170 East First Avenue
Collegeville, Pennsylvania 19426

Generated 2/9/2024 9:12:50 PM

JOB DESCRIPTION

019333

JOB NUMBER

460-297275-1

Eurofins Edison
777 New Durham Road
Edison NJ 08817

See page two for job notes and contact information.

myEOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

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2/9/2024 9:12:50 PM

Authorized for release by
Jill Miller, Senior Project Manager
Jill.Miller@et.eurofinsus.com
(484)802-0929

Table of Contents

Definitions/Glossary

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-297275-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Job Narrative
460-297275-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/30/2024 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

Receipt Exceptions
Containers were received for the following sample, but it was not listed on the COC. BF-1 (460-297275-10). Client sent permission to analyze.

Method 8260D - Volatile Organic Compounds by GC/MS
Samples 001-1 (297275-1), 001-2 (297275-2), 001-3 (297275-3), 002-1 (297275-4), 002-2 (297275-5), 002-3 (297275-6), 003-1 (297275-7), 003-2 (297275-8), 003-3 (297275-9) and BF-1 (297275-10) were analyzed for Volatile Organic Compounds by GC/MS. The samples were prepared on 2/1/2024 and analyzed on 2/2/2024, 2/3/2024 and 2/5/2024.

Sample 003-3 (297275-9)[2500x] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The laboratory control sample duplicate (LCSD) for analytical batch 460-957750 recovered outside control limits for the following analyte: Toluene. This analyte was biased low in the LCSD and within control limits in LCS, the data have been flagged and reported.

The following sample was diluted to bring the concentration of target analytes within the calibration range: 003-3 (460-297275-9). Elevated reporting limits (RLs) are provided.

The following sample required a dilution due to the nature of the sample matrix: 003-3 (460-297275-9). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method Moisture - Percent Moisture
Samples 001-1 (297275-1), 001-2 (297275-2), 001-3 (297275-3), 002-1 (297275-4), 002-2 (297275-5), 002-3 (297275-6), 003-1 (297275-7), 003-2 (297275-8), 003-3 (297275-9) and BF-1 (297275-10) were analyzed for Percent Moisture. The samples were analyzed on 2/1/2024.

Client Sample ID: 001-1

Lab Sample ID: 460-297275-1

Date Collected: 01/26/24 12:17
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 99.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**11**	**J**	38	7.8	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50
Toluene	**56**		38	9.6	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50
Ethylbenzene	12	U	38	12	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50
Xylenes, Total	**14**	**J**	77	11	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50
MTBE	8.2	U	38	8.2	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50
Naphthalene	34	U	38	34	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50
1,2,4-Trimethylbenzene	8.8	U	38	8.8	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50
1,3,5-Trimethylbenzene	9.6	U	38	9.6	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50
Isopropylbenzene	12	U	38	12	ug/Kg	☼	02/01/24 14:26	02/02/24 12:55	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 150*	*02/01/24 14:26*	*02/02/24 12:55*	*50*
Toluene-d8 (Surr)	*95*		*73 - 147*	*02/01/24 14:26*	*02/02/24 12:55*	*50*
Bromofluorobenzene	*100*		*70 - 141*	*02/01/24 14:26*	*02/02/24 12:55*	*50*
Dibromofluoromethane (Surr)	*93*		*68 - 142*	*02/01/24 14:26*	*02/02/24 12:55*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	1.0	U	1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**99.1**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: 001-2

Lab Sample ID: 460-297275-2

Date Collected: 01/26/24 12:22
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 99.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8.7	U	43	8.7	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50
Toluene	11	U	43	11	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50
Ethylbenzene	13	U	43	13	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50
Xylenes, Total	12	U	86	12	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50
MTBE	9.2	U	43	9.2	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50
Naphthalene	38	U	43	38	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50
1,2,4-Trimethylbenzene	9.9	U	43	9.9	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50
1,3,5-Trimethylbenzene	11	U	43	11	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50
Isopropylbenzene	14	U	43	14	ug/Kg	☼	02/01/24 14:26	02/02/24 13:20	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*68 - 150*	*02/01/24 14:26*	*02/02/24 13:20*	*50*
Toluene-d8 (Surr)	*97*		*73 - 147*	*02/01/24 14:26*	*02/02/24 13:20*	*50*
Bromofluorobenzene	*105*		*70 - 141*	*02/01/24 14:26*	*02/02/24 13:20*	*50*
Dibromofluoromethane (Surr)	*90*		*68 - 142*	*02/01/24 14:26*	*02/02/24 13:20*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**1.0**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**99.0**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: 001-3

Lab Sample ID: 460-297275-3

Date Collected: 01/26/24 12:29
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 98.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**9.9**	**J**	38	7.7	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50
Toluene	**52**		38	9.5	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50
Ethylbenzene	11	U	38	11	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50
Xylenes, Total	**18**	**J**	76	11	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50
MTBE	8.2	U	38	8.2	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50
Naphthalene	34	U	38	34	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50
1,2,4-Trimethylbenzene	8.8	U	38	8.8	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50
1,3,5-Trimethylbenzene	9.5	U	38	9.5	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50
Isopropylbenzene	12	U	38	12	ug/Kg	☼	02/01/24 14:27	02/02/24 13:45	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 150*	*02/01/24 14:27*	*02/02/24 13:45*	*50*
Toluene-d8 (Surr)	*97*		*73 - 147*	*02/01/24 14:27*	*02/02/24 13:45*	*50*
Bromofluorobenzene	*102*		*70 - 141*	*02/01/24 14:27*	*02/02/24 13:45*	*50*
Dibromofluoromethane (Surr)	*99*		*68 - 142*	*02/01/24 14:27*	*02/02/24 13:45*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**1.3**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**98.7**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: 002-1

Lab Sample ID: 460-297275-4

Date Collected: 01/26/24 11:01
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 97.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	8.1	U	40	8.1	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50
Toluene	**41**		40	10	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50
Ethylbenzene	12	U	40	12	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50
Xylenes, Total	11	U	80	11	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50
MTBE	8.6	U	40	8.6	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50
Naphthalene	35	U	40	35	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50
1,2,4-Trimethylbenzene	9.3	U	40	9.3	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50
1,3,5-Trimethylbenzene	10	U	40	10	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50
Isopropylbenzene	13	U	40	13	ug/Kg	☼	02/01/24 14:27	02/02/24 14:10	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 150*	*02/01/24 14:27*	*02/02/24 14:10*	*50*
Toluene-d8 (Surr)	*102*		*73 - 147*	*02/01/24 14:27*	*02/02/24 14:10*	*50*
Bromofluorobenzene	*107*		*70 - 141*	*02/01/24 14:27*	*02/02/24 14:10*	*50*
Dibromofluoromethane (Surr)	*97*		*68 - 142*	*02/01/24 14:27*	*02/02/24 14:10*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**2.1**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**97.9**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: 002-2

Lab Sample ID: 460-297275-5

Date Collected: 01/26/24 11:08
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 98.1

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**37**	**J**	38	7.8	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50
Toluene	**220**		38	9.6	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50
Ethylbenzene	12	U	38	12	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50
Xylenes, Total	**57**	**J**	77	11	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50
MTBE	8.2	U	38	8.2	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50
Naphthalene	34	U	38	34	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50
1,2,4-Trimethylbenzene	8.9	U	38	8.9	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50
1,3,5-Trimethylbenzene	9.6	U	38	9.6	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50
Isopropylbenzene	12	U	38	12	ug/Kg	☼	02/01/24 14:28	02/02/24 14:35	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 150*	*02/01/24 14:28*	*02/02/24 14:35*	*50*
Toluene-d8 (Surr)	*99*		*73 - 147*	*02/01/24 14:28*	*02/02/24 14:35*	*50*
Bromofluorobenzene	*105*		*70 - 141*	*02/01/24 14:28*	*02/02/24 14:35*	*50*
Dibromofluoromethane (Surr)	*101*		*68 - 142*	*02/01/24 14:28*	*02/02/24 14:35*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**1.9**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**98.1**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: 002-3

Lab Sample ID: 460-297275-6

Date Collected: 01/26/24 11:39
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 98.8

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**63**		41	8.4	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50
Toluene	**200**		41	10	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50
Ethylbenzene	**37**	**J**	41	12	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50
Xylenes, Total	**140**		83	12	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50
MTBE	8.9	U	41	8.9	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50
Naphthalene	36	U	41	36	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50
1,2,4-Trimethylbenzene	**29**	**J**	41	9.5	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50
1,3,5-Trimethylbenzene	**14**	**J**	41	10	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50
Isopropylbenzene	13	U	41	13	ug/Kg	☼	02/01/24 14:29	02/02/24 15:00	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*79*		*68 - 150*	*02/01/24 14:29*	*02/02/24 15:00*	*50*
Toluene-d8 (Surr)	*81*		*73 - 147*	*02/01/24 14:29*	*02/02/24 15:00*	*50*
Bromofluorobenzene	*83*		*70 - 141*	*02/01/24 14:29*	*02/02/24 15:00*	*50*
Dibromofluoromethane (Surr)	*79*		*68 - 142*	*02/01/24 14:29*	*02/02/24 15:00*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**1.2**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**98.8**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: 003-1

Lab Sample ID: 460-297275-7

Date Collected: 01/25/24 12:40

Matrix: Solid

Date Received: 01/30/24 19:00

Percent Solids: 98.3

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**11**	**J**	42	8.5	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50
Toluene	**51**		42	11	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50
Ethylbenzene	13	U	42	13	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50
Xylenes, Total	12	U	84	12	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50
MTBE	9.0	U	42	9.0	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50
Naphthalene	37	U	42	37	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50
1,2,4-Trimethylbenzene	9.7	U	42	9.7	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50
1,3,5-Trimethylbenzene	11	U	42	11	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50
Isopropylbenzene	13	U	42	13	ug/Kg	☼	02/01/24 14:29	02/02/24 15:25	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 150*	*02/01/24 14:29*	*02/02/24 15:25*	*50*
Toluene-d8 (Surr)	*95*		*73 - 147*	*02/01/24 14:29*	*02/02/24 15:25*	*50*
Bromofluorobenzene	*102*		*70 - 141*	*02/01/24 14:29*	*02/02/24 15:25*	*50*
Dibromofluoromethane (Surr)	*93*		*68 - 142*	*02/01/24 14:29*	*02/02/24 15:25*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**1.7**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**98.3**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: 003-2

Lab Sample ID: 460-297275-8

Date Collected: 01/25/24 12:46

Matrix: Solid

Date Received: 01/30/24 19:00

Percent Solids: 98.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**12**	**J**	40	8.1	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50
Toluene	**32**	**J**	40	10	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50
Ethylbenzene	12	U	40	12	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50
Xylenes, Total	11	U	81	11	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50
MTBE	8.6	U	40	8.6	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50
Naphthalene	35	U	40	35	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50
1,2,4-Trimethylbenzene	9.3	U	40	9.3	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50
1,3,5-Trimethylbenzene	10	U	40	10	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50
Isopropylbenzene	13	U	40	13	ug/Kg	☼	02/01/24 14:30	02/02/24 15:50	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 150*	*02/01/24 14:30*	*02/02/24 15:50*	*50*
Toluene-d8 (Surr)	*96*		*73 - 147*	*02/01/24 14:30*	*02/02/24 15:50*	*50*
Bromofluorobenzene	*98*		*70 - 141*	*02/01/24 14:30*	*02/02/24 15:50*	*50*
Dibromofluoromethane (Surr)	*87*		*68 - 142*	*02/01/24 14:30*	*02/02/24 15:50*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**1.5**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**98.5**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: 003-3

Lab Sample ID: 460-297275-9

Date Collected: 01/29/24 09:48

Matrix: Solid

Date Received: 01/30/24 19:00

Percent Solids: 98.4

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**66000**		2000	400	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500
Toluene	**640000**		2000	500	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500
Ethylbenzene	**120000**		2000	600	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500
Xylenes, Total	**790000**		4000	560	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500
MTBE	420	U	2000	420	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500
Naphthalene	**11000**		2000	1700	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500
1,2,4-Trimethylbenzene	**210000**		2000	460	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500
1,3,5-Trimethylbenzene	**55000**		2000	500	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500
Isopropylbenzene	**10000**		2000	630	ug/Kg	☼	02/01/24 14:30	02/05/24 15:28	2500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*0*	*D*	*68 - 150*	*02/01/24 14:30*	*02/05/24 15:28*	*2500*
Toluene-d8 (Surr)	*0*	*D*	*73 - 147*	*02/01/24 14:30*	*02/05/24 15:28*	*2500*
Bromofluorobenzene	*0*	*D*	*70 - 141*	*02/01/24 14:30*	*02/05/24 15:28*	*2500*
Dibromofluoromethane (Surr)	*0*	*D*	*68 - 142*	*02/01/24 14:30*	*02/05/24 15:28*	*2500*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**1.6**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**98.4**		1.0	1.0	%			02/01/24 17:53	1

Client Sample ID: BF-1

Lab Sample ID: 460-297275-10

Date Collected: 01/26/24 11:55

Matrix: Solid

Date Received: 01/30/24 19:00

Percent Solids: 83.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	9.9	U	49	9.9	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50
Toluene	**27**	**J *-**	49	12	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50
Ethylbenzene	15	U	49	15	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50
Xylenes, Total	14	U	98	14	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50
MTBE	10	U	49	10	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50
Naphthalene	43	U	49	43	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50
1,2,4-Trimethylbenzene	11	U	49	11	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50
1,3,5-Trimethylbenzene	12	U	49	12	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50
Isopropylbenzene	16	U	49	16	ug/Kg	☼	02/01/24 14:31	02/03/24 10:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*68 - 150*	*02/01/24 14:31*	*02/03/24 10:41*	*50*
Toluene-d8 (Surr)	*120*		*73 - 147*	*02/01/24 14:31*	*02/03/24 10:41*	*50*
Bromofluorobenzene	*128*		*70 - 141*	*02/01/24 14:31*	*02/03/24 10:41*	*50*
Dibromofluoromethane (Surr)	*119*		*68 - 142*	*02/01/24 14:31*	*02/03/24 10:41*	*50*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture (EPA Moisture)	**16.1**		1.0	1.0	%			02/01/24 17:53	1
Percent Solids (EPA Moisture)	**83.9**		1.0	1.0	%			02/01/24 17:53	1

Lab Chronicle

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-297275-1

Client Sample ID: 001-1 — **Lab Sample ID: 460-297275-1**
Date Collected: 01/26/24 12:17 — **Matrix: Solid**
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Client Sample ID: 001-1 — **Lab Sample ID: 460-297275-1**
Date Collected: 01/26/24 12:17 — **Matrix: Solid**
Date Received: 01/30/24 19:00 — **Percent Solids: 99.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:26
Total/NA	Analysis	8260D		50	957587	AAT	EET EDI	02/02/24 12:55

Client Sample ID: 001-2 — **Lab Sample ID: 460-297275-2**
Date Collected: 01/26/24 12:22 — **Matrix: Solid**
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Client Sample ID: 001-2 — **Lab Sample ID: 460-297275-2**
Date Collected: 01/26/24 12:22 — **Matrix: Solid**
Date Received: 01/30/24 19:00 — **Percent Solids: 99.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:26
Total/NA	Analysis	8260D		50	957587	AAT	EET EDI	02/02/24 13:20

Client Sample ID: 001-3 — **Lab Sample ID: 460-297275-3**
Date Collected: 01/26/24 12:29 — **Matrix: Solid**
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Client Sample ID: 001-3 — **Lab Sample ID: 460-297275-3**
Date Collected: 01/26/24 12:29 — **Matrix: Solid**
Date Received: 01/30/24 19:00 — **Percent Solids: 98.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:27
Total/NA	Analysis	8260D		50	957587	AAT	EET EDI	02/02/24 13:45

Client Sample ID: 002-1 — **Lab Sample ID: 460-297275-4**
Date Collected: 01/26/24 11:01 — **Matrix: Solid**
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Lab Chronicle

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-297275-1

Client Sample ID: 002-1
Lab Sample ID: 460-297275-4
Date Collected: 01/26/24 11:01
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 97.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:27
Total/NA	Analysis	8260D		50	957587	AAT	EET EDI	02/02/24 14:10

Client Sample ID: 002-2
Lab Sample ID: 460-297275-5
Date Collected: 01/26/24 11:08
Matrix: Solid
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Client Sample ID: 002-2
Lab Sample ID: 460-297275-5
Date Collected: 01/26/24 11:08
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 98.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:28
Total/NA	Analysis	8260D		50	957587	AAT	EET EDI	02/02/24 14:35

Client Sample ID: 002-3
Lab Sample ID: 460-297275-6
Date Collected: 01/26/24 11:39
Matrix: Solid
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Client Sample ID: 002-3
Lab Sample ID: 460-297275-6
Date Collected: 01/26/24 11:39
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 98.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:29
Total/NA	Analysis	8260D		50	957587	AAT	EET EDI	02/02/24 15:00

Client Sample ID: 003-1
Lab Sample ID: 460-297275-7
Date Collected: 01/25/24 12:40
Matrix: Solid
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Lab Chronicle

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-297275-1

Client Sample ID: 003-1
Lab Sample ID: 460-297275-7
Date Collected: 01/25/24 12:40
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 98.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:29
Total/NA	Analysis	8260D		50	957587	AAT	EET EDI	02/02/24 15:25

Client Sample ID: 003-2
Lab Sample ID: 460-297275-8
Date Collected: 01/25/24 12:46
Matrix: Solid
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Client Sample ID: 003-2
Lab Sample ID: 460-297275-8
Date Collected: 01/25/24 12:46
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 98.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:30
Total/NA	Analysis	8260D		50	957587	AAT	EET EDI	02/02/24 15:50

Client Sample ID: 003-3
Lab Sample ID: 460-297275-9
Date Collected: 01/29/24 09:48
Matrix: Solid
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Client Sample ID: 003-3
Lab Sample ID: 460-297275-9
Date Collected: 01/29/24 09:48
Matrix: Solid
Date Received: 01/30/24 19:00
Percent Solids: 98.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:30
Total/NA	Analysis	8260D		2500	957911	VZD	EET EDI	02/05/24 15:28

Client Sample ID: BF-1
Lab Sample ID: 460-297275-10
Date Collected: 01/26/24 11:55
Matrix: Solid
Date Received: 01/30/24 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	957517	CJC	EET EDI	02/01/24 17:53

Lab Chronicle

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-297275-1

Client Sample ID: BF-1
Date Collected: 01/26/24 11:55
Date Received: 01/30/24 19:00

Lab Sample ID: 460-297275-10
Matrix: Solid
Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			957480	AAT	EET EDI	02/01/24 14:31
Total/NA	Analysis	8260D		50	957750	AAT	EET EDI	02/03/24 10:41

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-297275-1

Laboratory: Eurofins Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	68-00522	02-29-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Method Summary

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-297275-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET EDI
5035	Closed System Purge and Trap	SW846	EET EDI

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Marshall Geoscience
Project/Site: 019333

Job ID: 460-297275-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-297275-1	001-1	Solid	01/26/24 12:17	01/30/24 19:00
460-297275-2	001-2	Solid	01/26/24 12:22	01/30/24 19:00
460-297275-3	001-3	Solid	01/26/24 12:29	01/30/24 19:00
460-297275-4	002-1	Solid	01/26/24 11:01	01/30/24 19:00
460-297275-5	002-2	Solid	01/26/24 11:08	01/30/24 19:00
460-297275-6	002-3	Solid	01/26/24 11:39	01/30/24 19:00
460-297275-7	003-1	Solid	01/25/24 12:40	01/30/24 19:00
460-297275-8	003-2	Solid	01/25/24 12:46	01/30/24 19:00
460-297275-9	003-3	Solid	01/29/24 09:48	01/30/24 19:00
460-297275-10	BF-1	Solid	01/26/24 11:55	01/30/24 19:00

Chain of Custody Record

659085

eurofins | Environment Testing America

Address. _____

Regulatory Program ☐ DW ☐ NPDES ☐ RCRA ☒ Other PADEP

TAL-8210

Client Contact	Project Manager: GIL MARSHALL	Site Contact: GIL MARSHALL	Date:	COC No:
Company Name: MARSHALL GEOSCIENCE	Tel/Email: 610-454-1172	Lab Contact: JILL MILLER	Carrier:	1 of 1 COCs
Address: 170 1ST AVENUE	Analysis Turnaround Time			Sampler:
City/State/Zip: COLLEGEVILLE, PA 19426	☒ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 610-454-1172	TAT if different from Below _____			Walk-in Client:
Fax:	☒ 2 weeks			Lab Sampling:
Project Name: 019333	☐ 1 week			Job / SDG No: 297775
Site: 019333	☐ 2 days			
P O # 019333	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	PADEP LIST SHORT	UNLEADED GASOLINE	Sample Specific Notes:
001-1	1/26/24	1217	G	SOIL	2				X	1
001-2	1/26/24	1222	G	SOIL	2				X	2
001-3	1/26/24	1229	G	SOIL	2				X	3
002-1	1/26/24	1101	G	SOIL	2				X	4
002-2	1/26/24	1108	G	SOIL	2				X	5
002-3	1/26/24	1139	G	SOIL	2				X	6
003-1	1/25/24	1240	G	SOIL	2				X	7
003-2	1/25/24	1246	G	SOIL	2				X	8
003-3	1/29/24	0948	G	SOIL	2				X	9
										10

460-297275 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No. | Cooler Temp. (°C): Obs'd: _____ Corr'd. _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Gil Marshall				EETN-KOP	1/30/24 738
Relinquished by:	Company: EETN-KOP	Date/Time: 1-30-24 45	Received by:	Company: ETA	Date/Time: 1/30
Relinquished by:	Company: ETA	Date/Time: 1/30 1900	Received in Laboratory by:	Company:	Date/Time: 1/30/24 1907

2/9/2024

Eurofins **TestAmerica Edison**
Receipt Temperature and pH Log

Job Number 29775

Number of Coolers: 1 IR Gun #: 2

Cooler Temperatures

Cooler #1:	3.1 °C	3.1 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below

Sample No(s). adjusted _____

Preservative Name/Conc. _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

*Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.

Initials: HD **Date:** 1/30

Login Sample Receipt Checklist

Client: Marshall Geoscience

Job Number: 460-297275-1

Login Number: 297275

List Source: Eurofins Edison

List Number: 1

Creator: Rivera, Kenneth

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