

**PRIVILEGED AND CONFIDENTIAL**

**SUMMARY REPORT OF FINDINGS**

# **LIMITED PHASE II SITE INVESTIGATION**

**PROPOSED McDONALD'S REBUILD #29-0019  
4295 & 4299 U.S. ROUTE 130  
EDGEWATER PARK, BURLINGTON COUNTY, NEW JERSEY**



*Prepared for:*

**McDONALD'S USA, LLC  
64 Harbor Drive  
Hammonton, New Jersey 08037**

*Prepared by:*

**WHITESTONE ASSOCIATES, INC.  
New Britain Corporate Center  
1600 Manor Drive, Suite 220  
Chalfont, Pennsylvania 18914**

**Whitestone Project # EP2016942.001  
February 14, 2020**

*Other Office Locations:*

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*Privileged & Confidential*

February 14, 2020

*via email*

**McDONALD'S USA, LLC**  
64 Harbor Drive  
Hammonton, New Jersey 08037

Attention: Jonathan M. Baske, P.E., PMP  
Area Construction Manager

**Regarding: LIMITED PHASE II SITE INVESTIGATION  
PROPOSED McDONALD'S REBUILD #29-0019  
4295 & 4299 U.S. ROUTE 130  
EDGEWATER PARK, BURLINGTON COUNTY, NEW JERSEY  
WHITESTONE PROJECT NO.: EP2016942.000**

Dear Mr. Baske:

Whitestone Associates, Inc. (Whitestone) conducted limited Phase II Site Investigation (SI) field activities to evaluate potential impacts to subsurface conditions at the above-referenced property on January 24, 2020 and January 27, 2020 in conjunction with geotechnical drilling and storm water management (SWM) area evaluation activities. A summary of Whitestone's findings, conclusions, and recommendations associated with this effort is presented below.

## **1.0 PROJECT BACKGROUND**

Recognized environmental conditions (RECs) identified during Whitestone's May 25, 2011 *Summary Report of Findings - Phase I Environmental Site Assessment (ESA)* concerned three underground storage tanks (USTs) associated with the former Edgewater Park Shell gasoline service station, an earlier gasoline service station/automobile repair business that operated from approximately the 1950s until 1989, and a release from a dispenser reported to New Jersey Department of Environmental Protection (NJDEP) in 2006 (Incident No. 06-09-05-1235-40). Pertinent findings from Whitestone's July 5, 2011 Phase II SI were as follows:

- ▶ During the geophysical survey, a non-metallic disturbed area was identified in the western portion of the site. The extent of the anomaly was approximately 42.0 feet in length by 28.0 feet in width. This anomaly was identified in the area of the former UST field and heating oil UST as depicted on historic documentation. An additional area of disturbed soil (suspected to be associated with an excavation) was identified in the northern portion of the gas station parcel immediately adjacent to the west of the existing UST field. The extent of the anomaly is approximately 17.0 feet in length by 11.5 feet in width.

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- ▶ The geographical survey also identified one suspected former dispenser island and suspected delivery lines/UST piping beneath the pavement adjacent to the southeast of the existing UST field. Additionally, the geophysical survey identified an area of disturbed soil in the general area of the abandoned drainage field located in the northwestern portion of the gasoline parcel and central portion of the McDonald's parcel. The extent of the anomaly is approximately 19.0 feet in length by 16.0 feet in width.
- ▶ No subsurface anomalies indicative of additional USTs were identified in accessible areas of the site during the geophysical survey.
- ▶ Laboratory analyses of two soil samples detected select base neutral and acid extractable (BNAE) organic compounds at concentrations exceeding the NJDEP's default impact to groundwater soil screening levels (IGW SSL), residential direct contact soil remediation standards (RDC SRS), and nonresidential direct contact soil remediation standards (NRDC SRS).

In 2014, Whitestone performed the closure (via removal) of one regulated 12,000-gallon unleaded gasoline UST, one regulated 10,000-gallon unleaded gasoline UST, and one regulated 10,000-gallon diesel UST associated with the former Edgewater Park Shell gasoline service station. Although evidence of a discharge or corrosion holes were not observed in the tanks upon removal from the ground, a discharge from dispenser piping was reported to NJDEP's spill hotline. Approximately 114.06 tons of petroleum-impacted soil were excavated and removed for off-site disposal. The laboratory analytical data for the post-excavation samples documented compliance with NJDEP cleanup standards. On October 8, 2014, Whitestone's Licensed Site Remediation Professional (LSRP) for the subject property issued an *Unrestricted-Use, Area of Concern-Specific Response Action Outcome* (RAO) authorizing regulatory closure of Incident Nos. 06-09-05-1235-40 and 14-01-23-1336-14.

## **2.0 SCOPE OF WORK AND LIMITATIONS**

The primary goals of the limited Phase II SI were to evaluate the site for the potential presence of additional USTs or other subsurface features of environmental concern, and preliminarily evaluate potential impacts to subsurface conditions – particularly in the locations of the proposed SWM features – through the collection and analyses of soil and groundwater samples. Specifically, the limited Phase II SI included the following tasks:

- ▶ conducting a geophysical survey in an effort to evaluate the site for remnant/inactive USTs, former UST excavation areas, and other subsurface structures of potential environmental concern, and clear drilling locations prior to installation of soil borings;
- ▶ installing 15 soil borings with hollow stem auger (HSA) drilling equipment to facilitate sample collection;
- ▶ installing one temporary wellpoint to evaluate the presence of groundwater and facilitate groundwater sample collection (not encountered); and
- ▶ submitting soil samples for laboratory analyses.

This Phase II SI was not intended to be an exhaustive evaluation of subsurface conditions at the subject property. This document is submitted for the sole use of McDonald's USA, LLC and should not be relied upon by any third party without Whitestone's written consent.

### **3.0 METHODOLOGY**

#### **3.1 Geophysical Survey**

During the geophysical survey, exterior portions of the existing site structure were surveyed utilizing a GSSI SIR 3000 cart-mounted ground penetrating radar (GPR) unit with a 400 MHZ antenna, a Fisher Scientific TW-6 magnetic locator, and a Radiodetection RD-7000 precision utility locator operated by a project geophysicist subcontracted from Delta Geophysics (Delta). GPR uses high frequency electromagnetic waves to evaluate subsurface conditions. Energy is propagated downward into the subsurface and reflected back to the GPR unit from boundaries between materials with contrasting densities and other physical properties. The magnetometer was used to verify the locations of subsurface utilities and other shallow metallic features. The geophysical survey identified the following features on the subject property:

- ▶ One non-metallic, cylindrical anomaly measuring approximately 11.0 feet by 18.0 feet situated approximately 3.0 feet below ground surface (fbgs) to 4 fbgs is located at the northern/northwestern corner of the McDonald's restaurant adjacent to an existing natural gas manifold. This feature could be indicative of a UST, drainage structure or other feature.
- ▶ Eight circular anomalies were identified in the asphalt drive-thru along the northeastern and southwestern exteriors of the McDonald's restaurant building. Each feature exhibited a metallic signature, measured approximately 5.0 feet in diameter, and was estimated to be located just beneath the asphalt surface. These features are suspected to be buried manhole covers associated with former stormwater or sanitary features servicing the McDonald's restaurant.
- ▶ One non-metallic, flat concrete anomaly measuring approximately 16.0 feet by 18.0 feet situated approximately 1.0 fbgs to 2.0 fbgs is located on the southwestern portion of Lot 13.03. This feature was identified during Whitestone's prior Phase I ESA and Phase II SI conducted in 2011 and is suspected to be an abandoned drainage field associated with the former gasoline service station.
- ▶ One anomaly measuring approximately 5.0 feet by 6.0 feet is located on the northern/northeastern corner of the subject property. The feature is suspected to be a former dry well or storm drain based on its location adjacent to a utility vault and an existing stormwater inlet.
- ▶ Suspected remnant utility lines were identified beneath the Lot 13.03 parcel, including two parallel lines each measuring approximately 145 linear feet suspected to be disconnected electric and water lines that serviced a kiosk at the former gasoline station.

Delta also performed a utility survey to locate electric, water, and storm sewer utilities throughout the site. Significant features and subsurface structures detected during the geophysical survey are presented on Figure 2 (*Boring Location Plan*). The geophysical report for this investigation is presented in Attachment C.

#### **3.2 Drilling & Sampling**

During the January 24, 2020 and January 27, 2020 GI field activities, Beechwood Drilling was subcontracted to advance a total of 15 soil borings at the site utilizing a truck-mounted HSA drill with split-spoon sampling equipment.

### **3.3 Laboratory Analyses**

Soil samples were submitted to a New Jersey-certified laboratory for extractable petroleum hydrocarbons (EPH), volatile organics plus 15 additional peaks (VO+15), base neutral organics plus 15 additional peaks (BN+15), Target Analyte List (TAL) metals, and polychlorinated biphenyl (PCB) analyses.

### **3.4 Remediation Standards**

The soil analytical data were compared to the default IGW SSL, RDC SRS, NRDC SRS, and NJDEP EPH Soil Remediation Criterion (SRC).

### **3.5 Data Presentation**

Geotechnical boring logs are provided in Attachment A. Laboratory analytical reports comprise Attachment B and are summarized in Table 1 (*Soil Boring Installation & Sampling Summary*) and Table 2 (*Soil Sampling & Analyses Data Summary*). The *Site Location Map* and *Boring Location Plan* are included as Figures 1 and 2, respectively. The geophysical survey report for this investigation is presented in Attachment C.

## **4.0 SAMPLING & ANALYSES DATA SUMMARY**

### **4.1 Sampling Strata**

In conjunction with Whitestone's GI, a total of 15 soil borings (B-1 through B-15) were advanced at the site to depths up to 20 fbs. Drilling and sampling information are summarized in Table 1. Materials encountered during Whitestone's due diligence investigation included the following:

**Surface Materials:** Borings were installed within paved and landscaped areas at the subject property and encountered asphalt with apparent sub-base and topsoil with organic materials generally extending to depths of approximately 0.5 fbs.

**Fill Materials:** Underlying the surface cover materials, soil borings encountered fill material generally consisting of brown sand with silt and gravel to a maximum depth of 9.0 fbs. Select borings also encountered debris material consisting of trace brick and concrete fragments.

**Coastal Plain Deposits:** Underlying the fill materials, borings encountered coastal plain deposits consisting predominantly of brown colored silty sands at depths ranging between 2.0 fbs and 20.0 fbs.

**Groundwater:** Groundwater was not encountered during this investigation to boring termination depths up to 20.0 fbs.

### **4.2 Soil Sampling**

Whitestone collected soil samples from six of the 15 GI soil borings including B-2, B-4 and B-12 through B-15. B-2 and B-4 targeted the northeastern and southwestern corners of the proposed McDonald's Restaurant building, and B-12 through B-15 targeted proposed SWM basin locations along the southeastern and northwestern portions of the subject property. Two soil samples were collected from each boring location at depths designated as "A" (shallow – between the surface and 2.0 fbs) and "B" (anticipated infiltration depth intervals – between 6.0 fbs and 8.0 fbs).

Boring B-4 was advanced in the approximate location of the suspected abandoned drainage field on the subject property. A petroleum odor also was noted in this boring between approximately 3.0 fbg and 5.0 fbg. Soil sample B-4B detected select BNs, including benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene, at concentrations exceeding NJDEP's RDC SRS, NRDC SRS, and/or IGW SSL. Sample B-4A, collected from the shallow interval within the same boring, also detected benzo(a)anthracene at 0.89 mg/kg above its respective RDC SRS and IGW SSL. Sample B-4B detected additional BNs and VOs at low-level concentrations above reporting limits (RLs) but below NJDEP's most stringent standards.

Sample B-13A detected benzo(a)anthracene at 0.95 mg/kg above the RDC SRS and IGW SSL and detected additional BNs at low level concentrations below NJDEP's most stringent standards.

Samples B-15A and B-15B also detected select BNs at low level concentrations above RLs but below NJDEP's most stringent standards.

Soil samples B-2B, B-4A, B-4B, B-12A, B-13A, B-14A, B-14B and B-15B detected concentrations of manganese and/or aluminum at concentrations exceeding their respective IGW SSL. Per NJDEP guidance, the IGW pathway does not need to be addressed for these contaminants unless there is a cause to believe that their presence is due to a site discharge. Soil samples collected on the subject property detected additional metals at low level concentrations above RLs but below NJDEP's most stringent standards.

Soil samples collected on the subject property did not detect concentrations of PCBs above reporting limits.

#### **4.3 Groundwater Sampling**

Groundwater was not encountered during this investigation to boring termination depths up to 20.0 fbg. Accordingly, groundwater samples were not collected as part of the Phase II SI.

### **5.0 CONCLUSIONS AND RECOMMENDATIONS**

The primary goals of the limited Phase II SI were to evaluate the site for the potential presence of additional USTs or other subsurface features of environmental concern, and preliminarily evaluate potential impacts to subsurface conditions – particularly in the locations of the proposed SWM features – through the collection and analyses of soil and groundwater samples. Findings and recommendations are summarized as follows:

- ▶ One non-metallic, cylindrical anomaly measuring approximately 11.0 feet by 18.0 feet situated approximately 3.0 feet below ground surface (fbg) to 4 fbg is located at the northern/northwestern corner of the McDonald's restaurant adjacent to an existing natural gas manifold. This feature could be indicative of a UST, drainage structure or other feature.
- ▶ Eight circular anomalies were identified in the asphalt drive-thru along the northeastern and southwestern exteriors of the McDonald's restaurant building. Each feature exhibited a metallic signature, measured approximately 5.0 feet in diameter, and was estimated to be located just beneath the asphalt surface. These features are suspected to be buried manhole covers associated with former stormwater or sanitary features servicing the McDonald's restaurant.
- ▶ One non-metallic, flat concrete anomaly measuring approximately 16.0 feet by 18.0 feet situated approximately 1.0 fbg to 2.0 fbg is located on the southwestern portion of Lot 13.03. This feature was identified during Whitestone's prior Phase I ESA and Phase II SI conducted in 2011

and is suspected to be an abandoned drainage field associated with the former gasoline service station.

- ▶ One anomaly measuring approximately 5.0 feet by 6.0 feet is located on the northern/northeastern corner of the subject property. The feature is suspected to be a former dry well or storm drain based on its location adjacent to a utility vault and an existing stormwater inlet.
- ▶ Suspected remnant utility lines were identified beneath the Lot 13.03 parcel, including two parallel lines each measuring approximately 145 linear feet suspected to be disconnected electric and water lines that serviced a kiosk at the former gasoline station.
- ▶ Soil samples were collected from six of the 15 GI soil borings. Borings B-2 and B-4 targeted the northeastern and southwestern corners of the proposed McDonald's Restaurant building, and borings B-12 through B-15 targeted proposed SWM basin locations along the southeastern and northwestern portions of the subject property.
- ▶ Boring B-4 was advanced in the approximate location of the suspected abandoned drainage field associated with the former service station. A petroleum odor also was noted in this boring between approximately 3.0 fbs and 5.0 fbs. Soil sample B-4B, collected from the 7.5 fbs to 8.0 fbs interval, detected select BNs including benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene at concentrations exceeding NJDEP's RDC SRS, NRDC SRS, and/or default IGW SSL. Sample B-4A, collected from the 1.5 fbs to 2.0 fbs interval within the same boring, also detected benzo(a)anthracene above the RDC SRS and default IGW SSL.
- ▶ Boring B-13 was advanced in the approximate location of a proposed SWM basin in the northwestern portion of the subject property. Sample B-13A detected benzo(a)anthracene above the RDC SRS and default IGW SSL.
- ▶ Select soil samples detected manganese and aluminum at concentrations exceeding their respective IGW SSL. Per NJDEP guidance, the IGW pathway does not need to be addressed for these contaminants unless there is a cause to believe that their presence is due to a site discharge.
- ▶ Soil borings encountered fill material generally consisting of brown sand with silt and gravel to a maximum depth of 9.0 fbs. Select borings also encountered debris material consisting of trace brick and concrete fragments.
- ▶ Groundwater was not encountered during this investigation to boring termination depths up to 20.0 fbs.

The BN-contaminated soils identified in borings B-4 and B-13 must be reported to NJDEP and remediated at the direction of the LSRP pursuant to the *Site Remediation Reform Act* (N.J.S.A. 58:10C-1 et seq).

The anomalies identified during the geophysical survey should be excavated to evaluate potential closure and remediation requirements. All USTs and/or other subsurface features of potential environmental concern must be cleaned and removed in accordance with NJDEP protocol and applicable waste management regulations. Subsurface evaluation and sampling activities should be conducted during all such closures. If additional areas of contamination above standards are documented, NJDEP must be notified and additional investigation, remediation, and regulatory reporting activities will be required.

### ***General Recommendations for NJDEP-Regulated Sites***

When a site enters a NJDEP regulatory program, the sampling of building materials (concrete, brick, etc.) will be required prior to the off-site disposal of renovation and/or demolition debris/materials in accordance with NJDEP guidance (if necessary). If documented to be contaminated, regulated disposal of building materials will be required.

To satisfy the NJDEP's *Fill Material Guidance for SRP Sites*, representative soil sampling will be required from proposed clean fill material prior to importing the material for use on site. If the material cannot be documented to meet NJDEP clean fill objectives, different source(s) of material must be identified, and additional sampling conducted.

In light of the documented soil contamination at the subject property, special considerations should be given with respect to worker health and safety during future site redevelopment activities. A site-specific *Health & Safety Plan* and *Soil Management Plan* should be prepared for on-site remediation or construction activities involving soil or groundwater management and subsurface excavation activities.

In the event that soil excavated or encountered during any future site redevelopment activities exhibits evidence of contamination, the soil should be segregated, characterized, and managed off-site in accordance with applicable state and federal waste management regulations unless contaminant concentrations allow such material to remain on site. Subsurface impacts (if encountered) should be reported and addressed (as required) by state regulations.

These findings are intended to supplement those outlined in Whitestone's February 14, 2020 *Summary Report of Findings - Phase I Environmental Site Assessment*, February 14, 2020 *Summary Report of Findings - Survey for Asbestos Containing Materials*, and February 14, 2020 *Summary Report of Findings - Report of Geotechnical Investigation*.

If you have questions regarding these findings, please do not hesitate to contact us at (215) 712-2700.

Sincerely,

**WHITESTONE ASSOCIATES, INC.**



Jeffrey T. Bauer, PG, LSRP  
Principal, Environmental Services



Eric P. Harris  
Environmental Specialist



**TABLE 1**  
**Soil Boring Installation &**  
**Sampling Summary**

**TABLE 1**  
**SOIL BORING INSTALLATION & SAMPLING SUMMARY**  
**January 24, 2020 and January 27, 2020**  
**McDonald's Rebuild #29-0019**  
**4295 & 4299 U.S. Route 130**  
**Edgewater Park, Burlington County, New Jersey**

Soil Boring Number	Soil Sample Interval (fbgs)	Total Boring Depth (fbgs)	Depth to Groundwater (fbgs)	Maximum PID Reading (ppmv)
B-1	NS	20.0	NE	–
B-2A	1.5 – 2.0	20.0	NE	–
B-2B	7.5 – 8.0	20.0	NE	–
B-3	NS	20.0	NE	–
B-4A	1.5 – 2.0	20.0	NE	–
B-4B	7.5 – 8.0	20.0	NE	–
B-5	NS	7.0	NE	–
B-6	NS	11.0	NE	–
B-7	NS	6.0	NE	–
B-8	NS	6.0	NE	–
B-9	NS	6.0	NE	–
B-10	NS	6.0	NE	–
B-11	NS	9.0	NE	–
B-12A	1.5 – 2.0	14.0	NE	–
B-12B	7.5 – 8.0	14.0	NE	–
B-13A	1.5 – 2.0	14.0	NE	–
B-13B	7.5 – 8.0	14.0	NE	–
B-14A	1.5 – 2.0	14.0	NE	–
B-14B	7.5 – 8.0	14.0	NE	–
B-15A	1.5 – 2.0	14.0	NE	–
B-15B	7.5 – 8.0	14.0	NE	–

**NOTES:**

PID Photoionization Detector  
 fbgs feet below ground surface  
 ppmv parts per million by volume  
 NE Not Encountered  
 NS Not Sampled

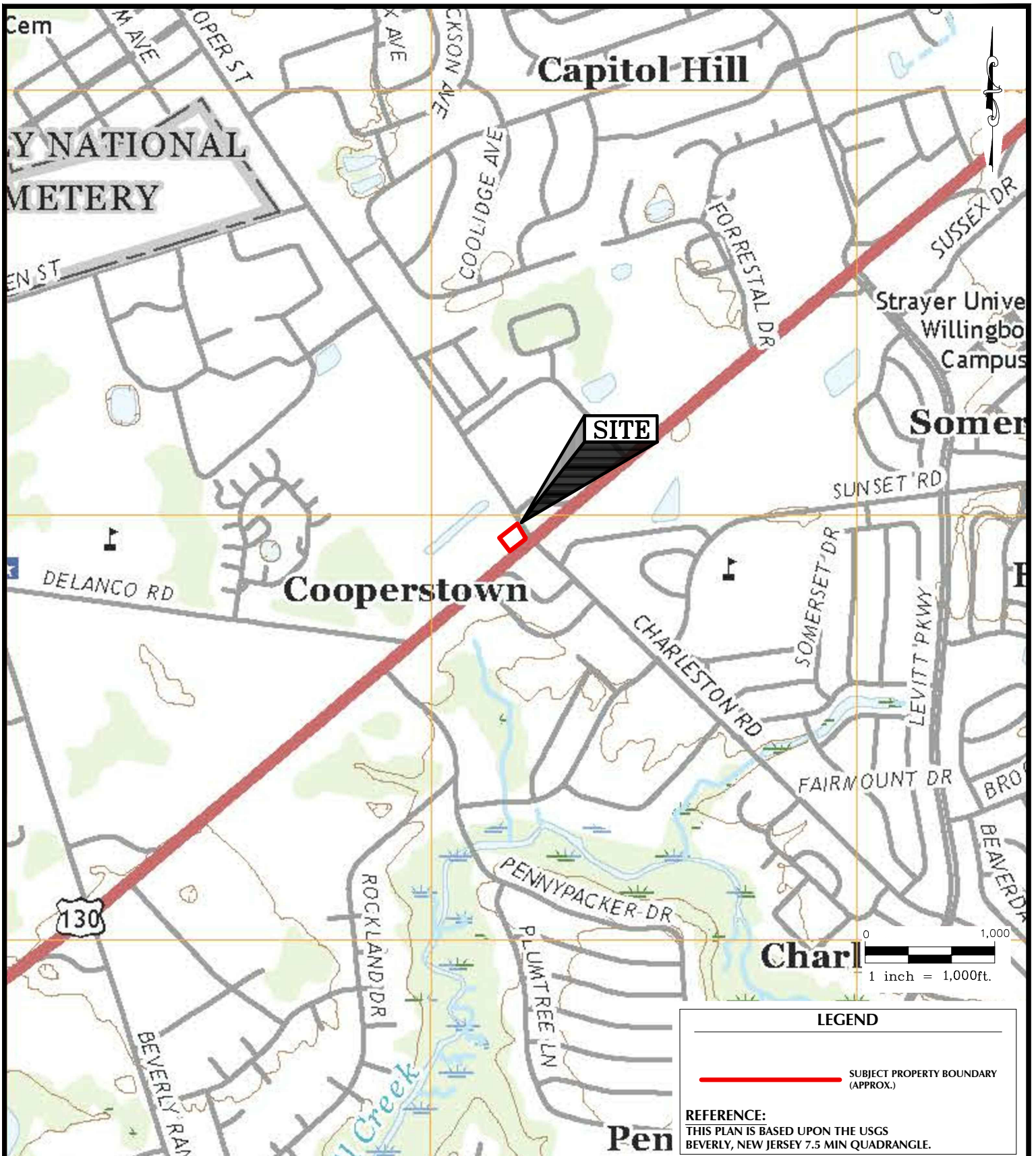
**TABLE 2**  
**Soil Sampling &**  
**Analyses Data Summary**







**FIGURE 1**  
**Site Location Map**  
**(USGS Topographic Quadrangle)**



**LEGEND**

 SUBJECT PROPERTY BOUNDARY (APPROX.)

**REFERENCE:**  
THIS PLAN IS BASED UPON THE USGS BEVERLY, NEW JERSEY 7.5 MIN QUADRANGLE.

PROJECT #: <b>EP2016942.001</b>	
DESIGNED BY: <b>GR</b>	PROJ. MGR.: <b>JTB</b>
DATE: <b>2/13/20</b>	FIGURE: <b>1</b>
SCALE: <b>1" = 1,000'</b>	

DRAWING TITLE: <b>SITE LOCATION MAP</b>	
CLIENT: <b>McDONALD'S USA, LLC</b>	
PROJECT: <b>PROPOSED McDONALD'S REBUILD #29-0019 4295 AND 4299 U.S. ROUTE 130 EDGEWATER PARK, BURLINGTON COUNTY, NJ</b>	



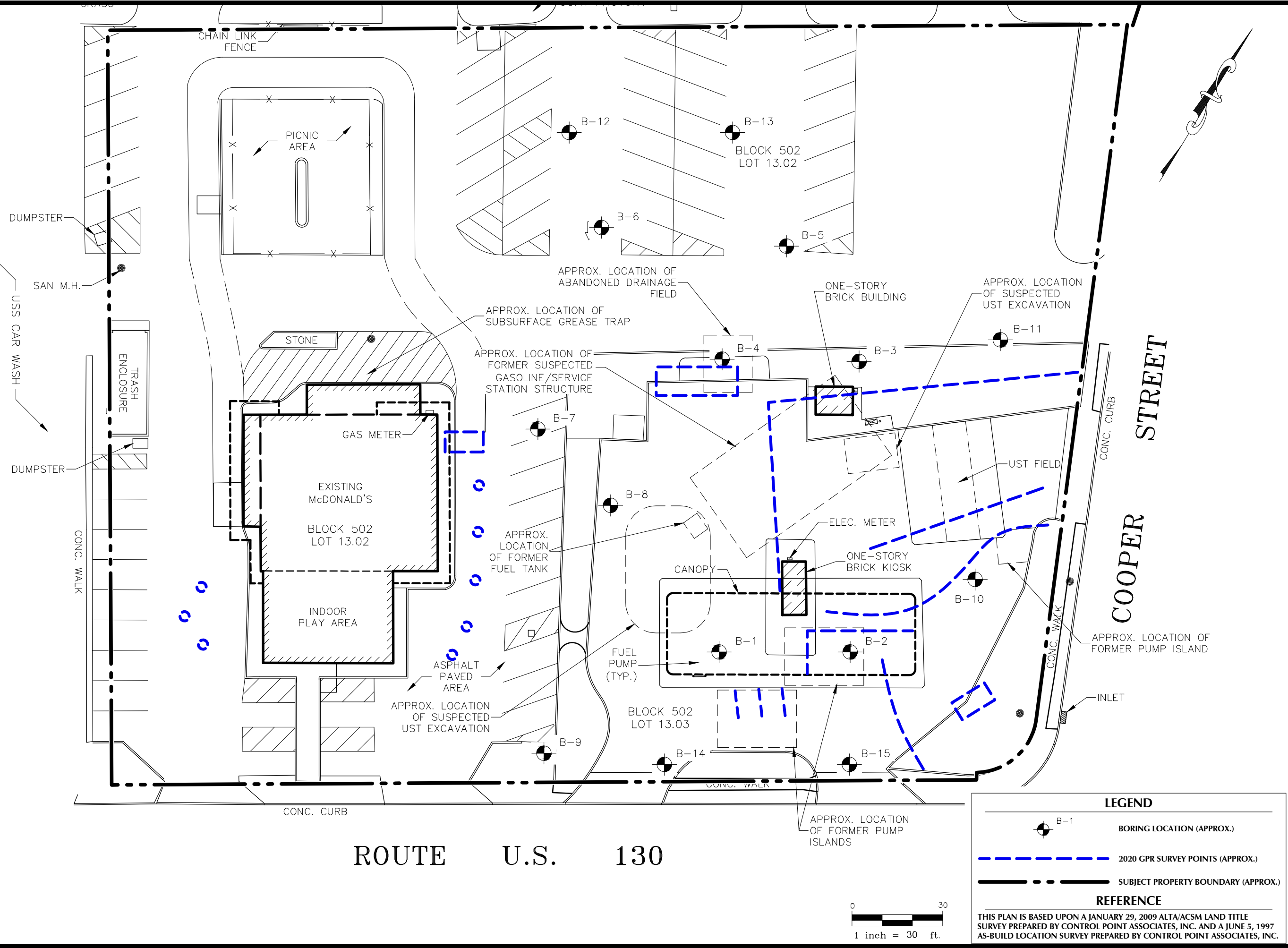
**WHITESTONE ASSOCIATES, INC.**  
*Environmental & Geotechnical Engineers & Consultants*

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**FIGURE 2**  
**Boring Location Plan**

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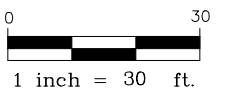


**LEGEND**

- B-1 BORING LOCATION (APPROX.)
- 2020 GPR SURVEY POINTS (APPROX.)
- SUBJECT PROPERTY BOUNDARY (APPROX.)

**REFERENCE**

THIS PLAN IS BASED UPON A JANUARY 29, 2009 ALTA/ACSM LAND TITLE SURVEY PREPARED BY CONTROL POINT ASSOCIATES, INC. AND A JUNE 5, 1997 AS-BUILD LOCATION SURVEY PREPARED BY CONTROL POINT ASSOCIATES, INC.



**WHITESTONE ASSOCIATES, INC.**  
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 215.712.2700 WHITESTONEASSOC.COM



**DRAWING TITLE:**  
BORING LOCATION PLAN

**CLIENT:**  
MCDONALD'S USA, LLC

**PROJECT #:**  
EP2016942.001

**DESIGNED BY:** GR      **PROJ. MGR.:** JTB

**DATE:** 2/13/20      **FIGURE:** 2

**SCALE:** 1" = 30'

**ATTACHMENT A**  
**Records of Subsurface Exploration**

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 29.5 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 20.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> 6.5(P)   23.0 ▼	<b>At Completion:</b> 14.5   15.0 ☒
<b>Proposed Location:</b> Building Pad	<b>Logged By:</b> TJ	<b>24 Hours:</b> ---   --- ▼	<b>24 Hours:</b> ---   --- ☒
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW		
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0	TOPSOIL	4" Topsoil	
0 - 2	S-1	X	2 - 3 - 5 - 6	13	8	0.3	FILL	Dark Brown Sand with Gravel, Moist (FILL)	
2 - 4	S-2	X	5 - 4 - 3 - 2	16	7			As Above, Moist (FILL)	
4 - 6	S-3	X	3 - 3 - 4 - 5	20	7	4.0	COASTAL PLAIN DEPOSITS	Brown/Orange Silty Sand, Moist, Loose (SM)	
6 - 8	S-4	X	4 - 4 - 5 - 6	18	9			As Above, Moist to Wet, Loose (SM)	Perched Water 6.5 fbgs
8 - 10	S-5	X	5 - 5 - 6 - 6	23	11			As Above, Moist, Medium Dense (SM)	
13 - 15	S-6	X	5 - 6 - 8 - 8	22	14	10.0		Brown Poorly-Graded Sand with Silt, Moist, Medium Dense (SP-SM)	
18 - 20	S-7	X	8 - 12 - 14 - 18	23	26	15.0		As Above, with 10% Gravel, Moist, Medium Dense (SP-SM)	
						20.0		Boring Log B-1 Terminated at a Depth of 20.0 Feet Below Ground Surface	
						25.0			

NOTES: bgs = below ground surface, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 29.5 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 20.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> 5.5(P)   24.0	<b>At Completion:</b> 14.0   15.5
<b>Proposed Location:</b> Building Pad	<b>Logged By:</b> TJ	<b>At Completion:</b> NE   ---	<b>At Completion:</b> 14.0   15.5
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW	<b>24 Hours:</b> ---   ---	<b>24 Hours:</b> ---   ---
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0	TOPSOIL	3" Topsoil	
0 - 2	S-1	<del>X</del>	2 - 4 - 5 - 5	17	9	0.3	FILL	Brown Sand with Gravel, Moist (FILL)	
2 - 4	S-2	<del>X</del>	4 - 5 - 6 - 6	22	11	2.0	COASTAL PLAIN DEPOSITS	Brown/Orange Silty Sand, Moist, Medium Dense (SM)	
4 - 6	S-3	<del>X</del>	5 - 5 - 5 - 5	21	10	5.0		As Above, Moist to Wet, Medium Dense (SM)	Perched Water 5.5 fbgs to 6.0 fbgs
6 - 8	S-4	<del>X</del>	5 - 5 - 5 - 6	22	10	8.0		As Above, Moist, Medium Dense (SM)	
8 - 10	S-5	<del>X</del>	4 - 5 - 5 - 5	24	10	10.0		As Above, Moist to Wet, Medium Dense (SM)	Perched Water 9.0 fbgs to 10.0 fbgs
13 - 15	S-6	<del>X</del>	6 - 7 - 7 - 9	22	14	15.0		Brown/Orange Poorly-Graded Sand with Silt, Moist, Medium Dense (SP-SM)	
18 - 20	S-7	<del>X</del>	8 - 11 - 16 - 24	20	27	20.0	Brown Silty Sand, Moist, Medium Dense (SM)		
						25.0		Boring Log B-2 Terminated at a Depth of 20.0 Feet Below Ground Surface	

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 31.5 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 20.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   ---   ▾	<b>At Completion:</b> NE   ---   ▾
<b>Proposed Location:</b> Building Pad	<b>Logged By:</b> TJ	<b>24 Hours:</b> ---   ---   ▾	<b>At Completion:</b> 12.5   19.0   <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW		<b>24 Hours:</b> ---   ---   <input checked="" type="checkbox"/>
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0	TOPSOIL	8" Topsoil	
0 - 2	S-1	X	2 - 6 - 11 - 12	24	17	0.7	FILL	Dark Brown Silty Sand with Gravel, Moist (FILL)	
2 - 4	S-2	X	7 - 8 - 8 - 7	24	16	2.0	COASTAL PLAIN DEPOSITS	Brown Poorly-Graded Sand with Silt and Gravel, Moist, Medium Dense (SP-SM)	
4 - 6	S-3	X	4 - 3 - 3 - 2	24	6	5.0		As Above, Moist, Loose (SP-SM)	
6 - 8	S-4	X	2 - 2 - 3 - 4	18	5	8.0		As Above, Moist, Loose (SP-SM)	
8 - 10	S-5	X	2 - 3 - 3 - 3	23	6	10.0		Dark Brown Silty Sand, Moist, Loose (SM)	
10 - 12	S-6	X	3 - 3 - 2 - 2	24	5	12.0		Brown/Orange Poorly-Graded Sand with Silt, Moist, loose (SP-SM)	
12 - 14	S-7	X	3 - 2 - 3 - 4	19	5	14.0		As Above, Moist, Loose (SP-SM)	
14 - 16	S-8	X	4 - 4 - 6 - 6	14	10	15.0		As Above, Moist, Medium Dense (SP-SM)	
16 - 18	S-9	X	5 - 5 - 6 - 6	16	11	17.0		As Above, with 15 % Gravel, Moist, Medium Dense (SP-SM)	
18 - 20	S-10	X	7 - 8 - 11 - 11	20	19	19.0		As Above, Moist to Wet, Medium Dense (SP-SM)	
						20.0		Boring Log B-3 Terminated at a Depth of 20.0 Feet Below Ground Surface	
						25.0			

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 30.5 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 20.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   ---   ▼	<b>At Completion:</b> 15.0   15.5   <input checked="" type="checkbox"/>
<b>Proposed Location:</b> Building Pad	<b>Logged By:</b> TJ	<b>At Completion:</b> NE   ---   ▼	<b>24 Hours:</b> ---   ---   <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW	<b>24 Hours:</b> ---   ---   ▼	<b>24 Hours:</b> ---   ---   <input checked="" type="checkbox"/>
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	(feet)			
0 - 2	A	B	Environmental Sample	---	---	0.0	TOPSOIL	6" Asphalt, 1" Subbase	
1 - 3	S-1	<del>X</del>	8 - 9 - 12 - 14	18	21	0.7	FILL	Brown Silty Sand with Gravel, Moist (FILL)	
3 - 5	S-2	<del>X</del>	3 - 4 - 3 - 3	20	7	5.0		As Above, with Gravel, Moist (FILL)	
5 - 7	S-3	<del>X</del>	3 - 4 - 4 - 4	21	8	7.0		As Above, with Gravel, Moist (FILL)	
7 - 9	S-4	<del>X</del>	3 - 3 - 3 - 3	17	6	9.0		Brown Silty Sand, Moist (FILL)	
9 - 11	S-5	<del>X</del>	3 - 4 - 4 - 5	16	8	10.0	COASTAL PLAIN DEPOSITS	Orange/Brown Poorly-Graded Sand, Moist, Loose (SP)	
13 - 15	S-6	<del>X</del>	4 - 4 - 5 - 5	24	9	15.0		As Above, Moist, Loose (SP)	
18 - 20	S-7	<del>X</del>	16 - 7 - 11 - 14	24	18	20.0		As Above, Moist, Medium Dense (SP)	
						25.0		Boring Log B-4 Terminated at a Depth of 20.0 Feet Below Ground Surface	

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 29.5 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 7.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   --- ▾	<b>At Completion:</b> 6.5   23.0 <input checked="" type="checkbox"/>
<b>Proposed Location:</b> Drive-Thru	<b>Logged By:</b> TJ	<b>At Completion:</b> NE   --- ▾	<b>24 Hours:</b> ---   --- <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW	<b>24 Hours:</b> ---   --- ▾	
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0			
						0.5	PAVEMENT	5" Asphalt, 1" Gravel Subbase	
							FILL		
1 - 3	S-1	<del>X</del>	3 - 4 - 4 - 5	16	8			Brown Sand with Gravel, Moist (FILL)	
3 - 5	S-2	<del>X</del>	5 - 6 - 7 - 6	24	13	4.0		As Above, Moist (FILL)	
						5.0	COASTAL PLAIN DEPOSITS	Brown Sand, Moist, Medium Dense (SP)	
5 - 7	S-3	<del>X</del>	5 - 4 - 4 - 4	21	8	7.0		As Above, Moist, Loose (SP)	
						7.0			Boring Log B-5 Terminated at a Depth of 7.0 Feet Below Ground Surface
						10.0			
						15.0			
						20.0			
						25.0			

NOTES: bgs = below ground surface, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched



# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 28.5 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 11.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   --- ▾	<b>At Completion:</b> 7.0   21.5 <input checked="" type="checkbox"/>
<b>Proposed Location:</b> Trash Enclosure	<b>Logged By:</b> TJ	<b>At Completion:</b> NE   --- ▾	<b>24 Hours:</b> ---   --- <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW	<b>24 Hours:</b> ---   --- ▾	<b>24 Hours:</b> ---   --- <input checked="" type="checkbox"/>
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	(feet)			
						0.0	PAVEMENT	3" Asphalt, 1" Gravel Subbase	
						0.4	FILL		
1 - 3	S-1		3 - 3 - 4 - 4	24	7			Brown Sand, Moist (FILL)	
3 - 5	S-2		3 - 4 - 4 - 5	12	8			As Above, Moist (FILL)	
5 - 7	S-3		6 - 5 - 5 - 5	24	10	5.0	COASTAL PLAIN DEPOSITS	Brown/Orange Poorly-Graded Sand with Silt and Gravel, Moist, Medium Dense (SP-SM)	
7 - 9	S-4		4 - 4 - 5 - 6	24	9			As Above, Moist, Loose (SP-SM)	
9 - 11	S-5		6 - 7 - 9 - 12	22	16	10.0		As Above, Moist, Medium Dense (SP-SM)	
						11.0			
									Boring Log B-6 Terminated at a Depth of 11.0 Feet Below Ground Surface
						15.0			
						20.0			
						25.0			

NOTES: bgs = below ground surface, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 30.0 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 6.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   --- ▾	<b>At Completion:</b> 4.0   26.0 <input checked="" type="checkbox"/>
<b>Proposed Location:</b> Pavement	<b>Logged By:</b> TJ	<b>At Completion:</b> NE   --- ▾	<b>24 Hours:</b> ---   --- <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW	<b>24 Hours:</b> ---   --- ▾	
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	(feet)			
						0.0	TOPSOIL	4" Topsoil	
0 - 2	S-1	<del>X</del>	2 - 3 - 4 - 6	16	7	0.3	FILL	Dark Brown Silty Sand with Gravel, Moist (FILL)	
2 - 4	S-2	<del>X</del>	5 - 5 - 6 - 6	20	11	4.0		As Above, Brown, Moist (FILL)	
4 - 6	S-3	<del>X</del>	5 - 5 - 4 - 4	24	9	5.0	COASTAL PLAIN DEPOSITS	Brown Silty Sand with 15% Rounded Gravel, Moist, Loose (SM)	
						6.0			Boring Log B-7 Terminated at a Depth of 6.0 Feet Below Ground Surface
						10.0			
						15.0			
						20.0			
						25.0			

NOTES: bgs = below ground surface, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 30.0 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 6.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   --- ▾	<b>At Completion:</b> NE   --- ▾
<b>Proposed Location:</b> Pavement	<b>Logged By:</b> TJ	<b>24 Hours:</b> ---   --- ▾	<b>At Completion:</b> DNC   --- <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW		<b>24 Hours:</b> ---   --- <input checked="" type="checkbox"/>
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0	TOPSOIL	4" Topsoil	
0 - 2	S-1	<del>X</del>	3 - 5 - 6 - 7	11	11	0.3	FILL	Brown Sand with Gravel, Moist (FILL)	
2 - 4	S-2	<del>X</del>	4 - 4 - 3 - 3	20	7	2.0	COASTAL PLAIN DEPOSITS	Brown/Orange Poorly-Graded Sand with Silt and 10% Gravel, Moist, Loose (SP-SM)	
4 - 6	S-3	<del>X</del>	3 - 2 - 5 - 5	24	4	5.0		As Above, with 10% Rounded Gravel, Moist, Loose to Medium Dense (SP-SM)	
						6.0		Boring Log B-8 Terminated at a Depth of 6.0 Feet Below Ground Surface	
						10.0			
						15.0			
						20.0			
						25.0			

NOTES: bgs = below ground surface, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 29.0 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 6.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   --- ▾	<b>At Completion:</b> NE   --- ▾
<b>Proposed Location:</b> Pavement	<b>Logged By:</b> TJ	<b>24 Hours:</b> ---   --- ▾	<b>At Completion:</b> DNC   --- <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW		<b>24 Hours:</b> ---   --- <input checked="" type="checkbox"/>
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0	TOPSOIL	3" Topsoil	
0 - 2	S-1	<del>X</del>	3 - 4 - 5 - 7	12	9	0.3	FILL	Brown Silty Sand, with Gravel, Moist (FILL)	
2 - 4	S-2	<del>X</del>	6 - 6 - 6 - 7	20	12	4.0		As Above with 10% Gravel and Brick Fragments, Moist (FILL)	
4 - 6	S-3	<del>X</del>	9 - 11 - 10 - 10	24	21	5.0	COASTAL PLAIN DEPOSITS	Brown/Light Orange Silty Sand with 10% Gravel, Moist, Medium Dense (SM)	
						6.0		Boring Log B-9 Terminated at a Depth of 6.0 Feet Below Ground Surface	
						10.0			
						15.0			
						20.0			
						25.0			

NOTES: bgs = below ground surface, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 30.0 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 6.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   --- ▾	<b>At Completion:</b> NE   --- ▾
<b>Proposed Location:</b> Pavement	<b>Logged By:</b> TJ	<b>24 Hours:</b> ---   --- ▾	<b>At Completion:</b> DNC   --- <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW		<b>24 Hours:</b> ---   --- <input checked="" type="checkbox"/>
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0	TOPSOIL	3" Topsoil	
0 - 2	S-1	<input checked="" type="checkbox"/>	3 - 4 - 5 - 5	12	9	0.3	FILL	Brown Sand with Gravel, Moist (FILL)	
2 - 4	S-2	<input checked="" type="checkbox"/>	6 - 5 - 4 - 4	24	9	2.0	COASTAL PLAIN DEPOSITS	Brown/Orange Poorly-Graded Sand with Silt and 10% Gravel, Moist, Loose (SP-SM)	
4 - 6	S-3	<input checked="" type="checkbox"/>	4 - 3 - 4 - 4	24	7	5.0		As Above, Gray/Orange, Very Moist, Loose (SP-SM)	
						6.0		Boring Log B-10 Terminated at a Depth of 6.0 Feet Below Ground Surface	
						10.0			
						15.0			
						20.0			
						25.0			

NOTES: bgs = below ground surface, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 30.5 feet	<b>Date Started:</b> 1/24/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 9.0 feet bgs	<b>Date Completed:</b> 1/24/2020	<b>During:</b> NE   --- ▾	<b>At Completion:</b> 6.0   24.5 <input checked="" type="checkbox"/>
<b>Proposed Location:</b> Pavement	<b>Logged By:</b> TJ	<b>At Completion:</b> NE   --- ▾	<b>24 Hours:</b> ---   --- <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW	<b>24 Hours:</b> ---   --- ▾	
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0			
						0.5	PAVEMENT	4" Asphalt, 1" Gravel Subbase	
							FILL		
1 - 3	S-1	<del>X</del>	2 - 3 - 4 - 4	14	7			Brown Silty Sand with Gravel, Moist (FILL)	
3 - 5	S-2	<del>X</del>	4 - 3 - 4 - 4	17	7			As Above, with Gravel, Moist (FILL)	
5 - 7	S-3	<del>X</del>	5 - 4 - 4 - 4	21	8			As Above, with Gravel, Moist (FILL)	
7 - 9	S-4	<del>X</del>	4 - 4 - 4 - 4	24	8		COASTAL PLAIN DEPOSITS	Brown/Orange Poorly-Graded Sand with Silt and 10% Gravel, Moist, Loose (SP-SM)	
						9.0			
						10.0			Boring Log B-11 Terminated at a Depth of 9.0 Feet Below Ground Surface
						15.0			
						20.0			
						25.0			

NOTES: bgs = below ground surface, NA = Not Applicable, NE = Not Encountered, NS = Not Surveyed, P = Perched

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 28.0 feet	<b>Date Started:</b> 1/27/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 14.0 feet bgs	<b>Date Completed:</b> 1/27/2020	<b>During:</b> NE   ---   ▾	<b>At Completion:</b> NE   ---   ▾
<b>Proposed Location:</b> SWM	<b>Logged By:</b> TJ	<b>24 Hours:</b> ---   ---   ▾	<b>At Completion:</b> 10.0   18.0   <input checked="" type="checkbox"/>
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW		<b>24 Hours:</b> ---   ---   <input checked="" type="checkbox"/>
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	(feet)			
						0.0	TOPSOIL	4" Asphalt, 1" Gravel	
0 - 2	A	B	Environmental Sample	---	---	0.3	FILL	Dark Yellowish Brown (7.5YR 4/4), LOAMY SAND, Single-Grain, No Roots, No Mottling, Moist (FILL)	
2 - 4	S-1	<del>X</del>	4 - 4 - 5 - 4	20	6			As Above, Moist (FILL)	
4 - 6	S-2	<del>X</del>	4 - 2 - 2 - 2	24	4	5.0		As Above, Moist (FILL)	
							COASTAL PLAIN DEPOSITS	Strong Brown (7.5YR 5/8) LOAMY SAND, Single-Grain, Moist, Loose (SP)	
6 - 8	A	B	Environmental Sample	---	---			As Above, with Gravel, Moist, Medium Dense (SP)	
	S-3	<del>X</del>	14 - 21 - 7 - 7	21	28			As Above, Moist, Medium Dense (SP)	
8 - 10	S-4	<del>X</del>	6 - 9 - 10 - 13	21	19			As Above, Moist, Dense (SP)	
10 - 12	S-5	<del>X</del>	11 - 19 - 15 - 17	23	34	10.0		As Above, Moist, Dense (SP)	
12 - 14	S-6	<del>X</del>	13 - 15 - 15 - 15	21	30	14.0		As Above, Moist, Dense (SP)	
						15.0		Boring Log B-12 Terminated at a Depth of 14.0 Feet Below Ground Surface	
						20.0			
						25.0			

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 29.0 feet	<b>Date Started:</b> 1/27/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 14.0 feet bgs	<b>Date Completed:</b> 1/27/2020	<b>During:</b> NE   ---   ▼	<b>At Completion:</b> 6.0   23.0   ▼
<b>Proposed Location:</b> SWM	<b>Logged By:</b> TJ	<b>24 Hours:</b> ---   ---   ▼	<b>24 Hours:</b> ---   ---   ▼
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW		
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	(feet)			
0.0						0.0	TOPSOIL	4" Asphalt	
0 - 2	A	B	Environmental Sample	---	---	0.3	FILL	Brown (7.5YR 3/2) SANDY LOAM, Single-Grain, No Roots, No Mottling, Moist (FILL)	
2 - 4	S-1	<del>X</del>	4 - 4 - 5 - 5	9	9			As Above, with Gravel, Moist (FILL)	
4 - 6	S-2	<del>X</del>	6 - 9 - 6 - 8	20	17	5.0		As Above, with Gravel, Moist (FILL)	
6 - 8	A	B	Environmental Sample	---	---	6.0	COASTAL PLAIN DEPOSITS	Strong Brown (7.5YR 5/8) LOAMY SAND, Single-Grain, No Roots, No Mottling, Moist, Medium Dense (SP-SM)	
	S-3	<del>X</del>	9 - 10 - 10 - 11	24	20				
8 - 10	S-4	<del>X</del>	10 - 11 - 13 - 15	23	24	10.0		As Above, Moist, Medium Dense (SP-SM)	
10 - 12	S-5	<del>X</del>	11 - 19 - 15 - 19	22	34			As Above, Moist, Dense (SP-SM)	
12 - 14	S-6	<del>X</del>	15 - 15 - 17 - 21	21	32	14.0		As Above, Moist, Dense (SP-SM)	
						15.0		Boring Log B-13 Terminated at a Depth of 14.0 Feet Below Ground Surface	
						20.0			
						25.0			



# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 29.0 feet	<b>Date Started:</b> 1/27/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 14.0 feet bgs	<b>Date Completed:</b> 1/27/2020	<b>During:</b> NE   ---   ▾	<b>At Completion:</b> 8.0   21.0   <input checked="" type="checkbox"/>
<b>Proposed Location:</b> SWM	<b>Logged By:</b> TJ	<b>At Completion:</b> NE   ---   ▾	<b>24 Hours:</b> ---   ---   ▾
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW	<b>24 Hours:</b> ---   ---   ▾	<b>24 Hours:</b> ---   ---   <input checked="" type="checkbox"/>
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	(feet)			
						0.0	TOPSOIL	4" Topsoil	
0 - 2	A	B	Environmental Sample	---	---	0.3	FILL	Brown (7.5YR 4/2) SANDY LOAM with 10% Gravel-Sized Concrete Fragments, Moist (FILL)	Poor Recovery Due to Gravel in Spoon Tip
	S-1	<del>X</del>	14 - 21 - 7 - 7	21	28				
2 - 4	S-2	<del>X</del>	19 - 20 - 7 - 4	5	27			As Above, with Gravel, Moist (FILL)	
4 - 6	S-3	<del>X</del>	3 - 3 - 3 - 3	12	6	5.0		As Above, with Trace Roots, Moist (FILL)	
6 - 8	S-4	<del>X</del>	2 - 2 - 3 - 4	24	5	6.0	COASTAL PLAIN DEPOSITS	Strong Brown (7.5YR 5/8) LOAMY SAND, Single-Grain, No Roots, No Mottling, Moist, Very Loose to Loose (SP-SM)	
8 - 10	S-5	<del>X</del>	4 - 4 - 9 - 5	24	8			As Above, Moist, Loose (SP-SM)	
10 - 12	S-6	<del>X</del>	4 - 4 - 4 - 4	20	8	10.0		As Above, Moist, Loose (SP-SM)	
12 - 14	S-7	<del>X</del>	5 - 5 - 5 - 6	23	10	14.0		As Above, Trace Silt, Moist, Medium Dense (SP-SM)	
						15.0		Boring Log B-14 Terminated at a Depth of 14.0 Feet Below Ground Surface	
						20.0			
						25.0			

# RECORD OF SUBSURFACE EXPLORATION

<b>Project:</b> Proposed McDonald's Restaurant No. 29-0019 Rebuild		<b>WAI Project No.:</b> GP1111577.001	
<b>Location:</b> 4295 & 4299 U.S. Route 130; Edgewater Park, Burlington County, NJ		<b>Client:</b> McDonald's USA, LLC	
<b>Surface Elevation:</b> ± 29.0 feet	<b>Date Started:</b> 1/27/2020	<b>Water Depth   Elevation</b> (feet bgs)   (feet)	<b>Cave-In Depth   Elevation</b> (feet bgs)   (feet)
<b>Termination Depth:</b> 14.0 feet bgs	<b>Date Completed:</b> 1/27/2020	<b>During:</b> 7.0(P)   22.0	<b>At Completion:</b> 12.0   17.0
<b>Proposed Location:</b> SWM	<b>Logged By:</b> TJ	<b>At Completion:</b> NE   ---	<b>At Completion:</b> 12.0   17.0
<b>Drill / Test Method:</b> HSA / SPT	<b>Contractor:</b> BW	<b>24 Hours:</b> ---   ---	<b>24 Hours:</b> ---   ---
	<b>Equipment:</b> CME-55		

SAMPLE INFORMATION						DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N	(feet)			
						0.0	TOPSOIL	2" Topsoil	
0 - 2	A	B	Environmental Sample	---	---	0.2	FILL	Brown (7.5YR 4/2) SANDY LOAM, with 10% Gravel-Size Concrete Fragments, Single-Grain, No Roots, No Mottling, Moist (FILL)	
	S-1	<del>X</del>	3 - 4 - 4 - 6	15	8				
2 - 4	S-2	<del>X</del>	5 - 17 - 9 - 3	23	21			As Above, with 10% Gravel and Concrete Fragments, Moist (FILL)	
4 - 6	S-3	<del>X</del>	5 - 4 - 4 - 3	24	8	5.0		As Above, with 10% Gravel, Moist (FILL)	
6 - 8	S-4	<del>X</del>	3 - 3 - 4 - 4	21	7	6.0	COASTAL PLAIN DEPOSITS	Strong Brown (7.5YR 5/8) LOAMY SAND, Single-Grain, No Mottling, No Roots, Moist to Wet, Loose (SP-SM)	Perched Water 7.0 fbg to 7.5 fbg
8 - 10	S-5	<del>X</del>	4 - 5 - 6 - 6	24	11			As Above, Moist, Medium Dense (SP-SM)	
10 - 12	S-6	<del>X</del>	6 - 7 - 8 - 8	24	15			As Above, Moist, Medium Dense (SP-SM)	
12 - 14	S-7	<del>X</del>	10 - 11 - 12 - 12	24	23	14.0		As Above, Moist, Medium Dense (SP-SM)	
						15.0		Boring Log B-15 Terminated at a Depth of 14.0 Feet Below Ground Surface	
						20.0			
						25.0			

**ATTACHMENT B**  
**Laboratory Analytical Data Reports**

**Project: EP2016942.001****Client PO:** EP2016942.001**Report To:** Whitestone Associates  
1600 Manor Drive  
Suite 220  
Chalfont, PA 18914  
Attn: J.Bauer/E.Harris**Received Date:** 1/29/2020**Report Date:****Deliverables:** NJDEP-R**Lab ID:** AD15423**Lab Project No:** 0012911

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This report is a true report of results obtained from our tests of this material. The report relates only to those samples received and analyzed by the laboratory. All results meet the requirements of the NELAC Institute standards. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

In lieu of a formal contract document, the total aggregate liability of Hampton-Clarke to all parties shall not exceed Hampton-Clarke's total fee for analytical services rendered.

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**Sean Berls - Quality Assurance Officer**

OR

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**Jean Revolus - Laboratory Director**

NJ (07071)

NY (ELAP11408)

CT (PH-0671)

PA (68-00463)

KY (90124)



# Hampton-Clarke Report Of Analysis

Client: Whitestone Associates

HC Project #: 0012911

Project: EP2016942.001

Sample ID: B-2A

Lab#: AD15423-001

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

## % Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		79

## Base Neutrals + 15 (8270)

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.042	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.042	ND
1-Methylnaphthalene	1	mg/kg	0.042	ND
2,4-Dinitrotoluene	1	mg/kg	0.042	ND
2,6-Dinitrotoluene	1	mg/kg	0.042	ND
2-Chloronaphthalene	1	mg/kg	0.042	ND
2-Methylnaphthalene	1	mg/kg	0.042	ND
2-Nitroaniline	1	mg/kg	0.042	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.042	ND
3-Nitroaniline	1	mg/kg	0.042	ND
4-Bromophenyl-phenylether	1	mg/kg	0.042	ND
4-Chloroaniline	1	mg/kg	0.011	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.042	ND
4-Nitroaniline	1	mg/kg	0.042	ND
Acenaphthene	1	mg/kg	0.042	ND
Acenaphthylene	1	mg/kg	0.042	ND
Acetophenone	1	mg/kg	0.042	ND
Anthracene	1	mg/kg	0.042	ND
Atrazine	1	mg/kg	0.042	ND
Benzaldehyde	1	mg/kg	0.042	ND
Benzo[a]anthracene	1	mg/kg	0.042	ND
Benzo[a]pyrene	1	mg/kg	0.042	ND
Benzo[b]fluoranthene	1	mg/kg	0.042	ND
Benzo[g,h,i]perylene	1	mg/kg	0.042	ND
Benzo[k]fluoranthene	1	mg/kg	0.042	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.042	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.011	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.042	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.042	ND
Butylbenzylphthalate	1	mg/kg	0.042	ND
Caprolactam	1	mg/kg	0.042	ND
Carbazole	1	mg/kg	0.042	ND
Chrysene	1	mg/kg	0.042	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.042	ND
Dibenzofuran	1	mg/kg	0.011	ND
Diethylphthalate	1	mg/kg	0.042	ND
Dimethylphthalate	1	mg/kg	0.042	ND
Di-n-butylphthalate	1	mg/kg	0.011	ND
Di-n-octylphthalate	1	mg/kg	0.042	ND
Fluoranthene	1	mg/kg	0.042	ND
Fluorene	1	mg/kg	0.042	ND
Hexachlorobenzene	1	mg/kg	0.042	ND
Hexachlorobutadiene	1	mg/kg	0.042	ND
Hexachlorocyclopentadiene	1	mg/kg	0.042	ND
Hexachloroethane	1	mg/kg	0.042	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.042	ND
Isophorone	1	mg/kg	0.042	ND
Naphthalene	1	mg/kg	0.011	ND
Nitrobenzene	1	mg/kg	0.042	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.011	ND
N-Nitrosodiphenylamine	1	mg/kg	0.042	ND
Phenanthrene	1	mg/kg	0.042	ND
Pyrene	1	mg/kg	0.042	ND

Sample ID: B-2A  
 Lab#: AD15423-001  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	48.68	50	58	148	97	
Nitrobenzene-d5	38.75	50	52	129	78	
2-Fluorobiphenyl	36.63	50	58	125	73	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
9-Octadecenamamide, (Z)-	1	mg/kg	12.09	0.16J
2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.31	4.3JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.24	0.11JB
Benzene, 1-ethyl-2-methyl-	1	mg/kg	5.43	0.12JB
Benzene, 1,2,4-trimethyl-	1	mg/kg	5.49	0.11J
Benzene, 1,2,4-trimethyl-	1	mg/kg	5.67	0.17JB
Ethane, 1-ethoxy-1-methoxy-	1	mg/kg	5.75	0.26JB
TotalSemiVolatileTic	1	mg/kg	NA	5.2J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result
C9-C40	1	mg/kg	76	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	96.02	100	40	140	96	
1-Chlorooctadecane	91.70	100	40	140	92	

**PCB 8082**

Analyte	DF	Units	RL	Result
Aroclor (Total)	1	mg/kg	0.032	ND
Aroclor-1016	1	mg/kg	0.032	ND
Aroclor-1221	1	mg/kg	0.032	ND
Aroclor-1232	1	mg/kg	0.032	ND
Aroclor-1242	1	mg/kg	0.032	ND
Aroclor-1248	1	mg/kg	0.032	ND
Aroclor-1254	1	mg/kg	0.032	ND
Aroclor-1260	1	mg/kg	0.032	ND
Aroclor-1262	1	mg/kg	0.032	ND
Aroclor-1268	1	mg/kg	0.032	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	109.54	100	37	141	110	
TCMX-Surrogate	99.94	100	37	141	100	
DCB-Surrogate	108.98	100	34	146	109	
DCB-Surrogate	90.94	100	34	146	91	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	250	3800
Barium	1	mg/kg	13	18
Calcium	1	mg/kg	1300	ND
Chromium	1	mg/kg	6.3	9.5
Cobalt	1	mg/kg	3.2	ND
Copper	1	mg/kg	6.3	ND
Iron	1	mg/kg	250	9800
Lead	1	mg/kg	6.3	ND
Magnesium	1	mg/kg	630	ND
Manganese	1	mg/kg	13	48
Nickel	1	mg/kg	6.3	ND
Potassium	1	mg/kg	630	ND
Sodium	1	mg/kg	320	ND
Vanadium	1	mg/kg	13	ND
Zinc	1	mg/kg	13	15

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	1.0	ND
Arsenic	1	mg/kg	0.25	2.4

Sample ID: B-2A  
 Lab#: AD15423-001  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

Beryllium	1	mg/kg	0.25	0.34
Cadmium	1	mg/kg	0.51	ND
Selenium	1	mg/kg	2.5	ND
Silver	1	mg/kg	0.25	ND
Thallium	1	mg/kg	0.51	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.849	mg/kg	0.0021	ND
1,1,2,2-Tetrachloroethane	0.849	mg/kg	0.0021	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.849	mg/kg	0.0021	ND
1,1,2-Trichloroethane	0.849	mg/kg	0.0021	ND
1,1-Dichloroethane	0.849	mg/kg	0.0021	ND
1,1-Dichloroethene	0.849	mg/kg	0.0021	ND
1,2,3-Trichlorobenzene	0.849	mg/kg	0.0021	ND
1,2,4-Trichlorobenzene	0.849	mg/kg	0.0021	ND
1,2,4-Trimethylbenzene	0.849	mg/kg	0.0011	ND
1,2-Dibromo-3-chloropropane	0.849	mg/kg	0.0021	ND
1,2-Dibromoethane	0.849	mg/kg	0.00084	ND
1,2-Dichlorobenzene	0.849	mg/kg	0.0021	ND
1,2-Dichloroethane	0.849	mg/kg	0.0021	ND
1,2-Dichloropropane	0.849	mg/kg	0.0021	ND
1,3-Dichlorobenzene	0.849	mg/kg	0.0021	ND
1,4-Dichlorobenzene	0.849	mg/kg	0.0021	ND
1,4-Dioxane	0.849	mg/kg	0.11	ND
2-Butanone	0.849	mg/kg	0.0021	ND
2-Hexanone	0.849	mg/kg	0.0021	ND
4-Methyl-2-pentanone	0.849	mg/kg	0.0021	ND
Acetone	0.849	mg/kg	0.011	ND
Benzene	0.849	mg/kg	0.0011	ND
Bromochloromethane	0.849	mg/kg	0.0021	ND
Bromodichloromethane	0.849	mg/kg	0.0021	ND
Bromoform	0.849	mg/kg	0.0021	ND
Bromomethane	0.849	mg/kg	0.0021	ND
Carbon disulfide	0.849	mg/kg	0.0021	ND
Carbon tetrachloride	0.849	mg/kg	0.0021	ND
Chlorobenzene	0.849	mg/kg	0.0021	ND
Chloroethane	0.849	mg/kg	0.0021	ND
Chloroform	0.849	mg/kg	0.0021	ND
Chloromethane	0.849	mg/kg	0.0021	ND
cis-1,2-Dichloroethene	0.849	mg/kg	0.0021	ND
cis-1,3-Dichloropropene	0.849	mg/kg	0.0021	ND
Cyclohexane	0.849	mg/kg	0.0021	ND
Dibromochloromethane	0.849	mg/kg	0.0021	ND
Dichlorodifluoromethane	0.849	mg/kg	0.0021	ND
Ethylbenzene	0.849	mg/kg	0.0011	ND
Isopropylbenzene	0.849	mg/kg	0.0011	ND
m&p-Xylenes	0.849	mg/kg	0.0011	ND
Methyl Acetate	0.849	mg/kg	0.0021	ND
Methylcyclohexane	0.849	mg/kg	0.0021	ND
Methylene chloride	0.849	mg/kg	0.0021	ND
Methyl-t-butyl ether	0.849	mg/kg	0.0011	ND
o-Xylene	0.849	mg/kg	0.0011	ND
Styrene	0.849	mg/kg	0.0021	ND
Tetrachloroethene	0.849	mg/kg	0.0021	ND
Toluene	0.849	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	0.849	mg/kg	0.0021	ND
trans-1,3-Dichloropropene	0.849	mg/kg	0.0021	ND
Trichloroethene	0.849	mg/kg	0.0021	ND
Trichlorofluoromethane	0.849	mg/kg	0.0021	ND
Vinyl chloride	0.849	mg/kg	0.0021	ND
Xylenes (Total)	0.849	mg/kg	0.0011	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.47	30	68	122	92	
Dibromofluoromethane	30.34	30	63	140	101	
Bromofluorobenzene	29.40	30	64	129	98	
1,2-Dichloroethane-d4	31.74	30	63	143	106	

Sample ID: B-2A  
Lab#: AD15423-001  
Matrix: Soil/Encore

Collection Date: 1/28/2020  
Receipt Date: 1/29/2020

**Volatile Organics + 15 (8260) Library Searches**

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	0.849	mg/kg	NA	ND
TotalVolatileTic	0.849	mg/kg	NA	ND



Sample ID: B-2B  
 Lab#: AD15423-002  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		90

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	mg/kg	0.037	ND		
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.037	ND		
1-Methylnaphthalene	1	mg/kg	0.037	ND		
2,4-Dinitrotoluene	1	mg/kg	0.037	ND		
2,6-Dinitrotoluene	1	mg/kg	0.037	ND		
2-Chloronaphthalene	1	mg/kg	0.037	ND		
2-Methylnaphthalene	1	mg/kg	0.037	ND		
2-Nitroaniline	1	mg/kg	0.037	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.037	ND		
3-Nitroaniline	1	mg/kg	0.037	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.037	ND		
4-Chloroaniline	1	mg/kg	0.0093	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.037	ND		
4-Nitroaniline	1	mg/kg	0.037	ND		
Acenaphthene	1	mg/kg	0.037	ND		
Acenaphthylene	1	mg/kg	0.037	ND		
Acetophenone	1	mg/kg	0.037	ND		
Anthracene	1	mg/kg	0.037	ND		
Atrazine	1	mg/kg	0.037	ND		
Benzaldehyde	1	mg/kg	0.037	ND		
Benzo[a]anthracene	1	mg/kg	0.037	ND		
Benzo[a]pyrene	1	mg/kg	0.037	ND		
Benzo[b]fluoranthene	1	mg/kg	0.037	ND		
Benzo[g,h,i]perylene	1	mg/kg	0.037	ND		
Benzo[k]fluoranthene	1	mg/kg	0.037	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.037	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0093	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.037	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.037	ND		
Butylbenzylphthalate	1	mg/kg	0.037	ND		
Caprolactam	1	mg/kg	0.037	ND		
Carbazole	1	mg/kg	0.037	ND		
Chrysene	1	mg/kg	0.037	ND		
Dibenzo[a,h]anthracene	1	mg/kg	0.037	ND		
Dibenzofuran	1	mg/kg	0.0093	ND		
Diethylphthalate	1	mg/kg	0.037	ND		
Dimethylphthalate	1	mg/kg	0.037	ND		
Di-n-butylphthalate	1	mg/kg	0.0093	ND		
Di-n-octylphthalate	1	mg/kg	0.037	ND		
Fluoranthene	1	mg/kg	0.037	ND		
Fluorene	1	mg/kg	0.037	ND		
Hexachlorobenzene	1	mg/kg	0.037	ND		
Hexachlorobutadiene	1	mg/kg	0.037	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.037	ND		
Hexachloroethane	1	mg/kg	0.037	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.037	ND		
Isophorone	1	mg/kg	0.037	ND		
Naphthalene	1	mg/kg	0.0093	ND		
Nitrobenzene	1	mg/kg	0.037	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0093	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.037	ND		
Phenanthrene	1	mg/kg	0.037	ND		
Pyrene	1	mg/kg	0.037	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	50.25	50	58	148	100	
Nitrobenzene-d5	35.41	50	52	129	71	
2-Fluorobiphenyl	36.03	50	58	125	72	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
9-Octadecenamide, (Z)-	1	mg/kg	12.09	0.72J

Sample ID: B-2B  
 Lab#: AD15423-002  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

Cyclohexane	1	mg/kg	2.25	0.11J
2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.3	3.3JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.24	0.10JB
Benzene, 1-ethyl-3-methyl-	1	mg/kg	5.43	0.076J
Benzene, 1,2,3-trimethyl-	1	mg/kg	5.67	0.14J
Ethane, 1-ethoxy-1-methoxy-	1	mg/kg	5.75	0.19JB
TotalSemiVolatileTic	1	mg/kg	NA	4.6J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.093	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	67	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	100.34	100	40	140	100	
1-Chlorooctadecane	96.78	100	40	140	97	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	144.94	100	37	141	145	S8
TCMX-Surrogate	128.17	100	37	141	128	
DCB-Surrogate	148.24	100	34	146	148	S8
DCB-Surrogate	121.14	100	34	146	121	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	220	3900
Barium	1	mg/kg	11	14
Calcium	1	mg/kg	1100	ND
Chromium	1	mg/kg	5.6	12
Cobalt	1	mg/kg	2.8	3.6
Copper	1	mg/kg	5.6	ND
Iron	1	mg/kg	220	13000
Lead	1	mg/kg	5.6	ND
Magnesium	1	mg/kg	560	1300
Manganese	1	mg/kg	11	85
Nickel	1	mg/kg	5.6	6.5
Potassium	1	mg/kg	560	ND
Sodium	1	mg/kg	280	ND
Vanadium	1	mg/kg	11	13
Zinc	1	mg/kg	11	30

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.89	ND
Arsenic	1	mg/kg	0.22	2.6
Beryllium	1	mg/kg	0.22	ND
Cadmium	1	mg/kg	0.44	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
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Sample ID: B-2B

Lab#: AD15423-002

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

1,1,1-Trichloroethane	0.761	mg/kg	0.0017	ND
1,1,2,2-Tetrachloroethane	0.761	mg/kg	0.0017	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.761	mg/kg	0.0017	ND
1,1,2-Trichloroethane	0.761	mg/kg	0.0017	ND
1,1-Dichloroethane	0.761	mg/kg	0.0017	ND
1,1-Dichloroethene	0.761	mg/kg	0.0017	ND
1,2,3-Trichlorobenzene	0.761	mg/kg	0.0017	ND
1,2,4-Trichlorobenzene	0.761	mg/kg	0.0017	ND
1,2,4-Trimethylbenzene	0.761	mg/kg	0.00085	ND
1,2-Dibromo-3-chloropropane	0.761	mg/kg	0.0017	ND
1,2-Dibromoethane	0.761	mg/kg	0.00066	ND
1,2-Dichlorobenzene	0.761	mg/kg	0.0017	ND
1,2-Dichloroethane	0.761	mg/kg	0.0017	ND
1,2-Dichloropropane	0.761	mg/kg	0.0017	ND
1,3-Dichlorobenzene	0.761	mg/kg	0.0017	ND
1,4-Dichlorobenzene	0.761	mg/kg	0.0017	ND
1,4-Dioxane	0.761	mg/kg	0.085	ND
2-Butanone	0.761	mg/kg	0.0017	ND
2-Hexanone	0.761	mg/kg	0.0017	ND
4-Methyl-2-pentanone	0.761	mg/kg	0.0017	ND
Acetone	0.761	mg/kg	0.0085	ND
Benzene	0.761	mg/kg	0.00085	ND
Bromochloromethane	0.761	mg/kg	0.0017	ND
Bromodichloromethane	0.761	mg/kg	0.0017	ND
Bromoform	0.761	mg/kg	0.0017	ND
Bromomethane	0.761	mg/kg	0.0017	ND
Carbon disulfide	0.761	mg/kg	0.0017	ND
Carbon tetrachloride	0.761	mg/kg	0.0017	ND
Chlorobenzene	0.761	mg/kg	0.0017	ND
Chloroethane	0.761	mg/kg	0.0017	ND
Chloroform	0.761	mg/kg	0.0017	ND
Chloromethane	0.761	mg/kg	0.0017	ND
cis-1,2-Dichloroethene	0.761	mg/kg	0.0017	ND
cis-1,3-Dichloropropene	0.761	mg/kg	0.0017	ND
Cyclohexane	0.761	mg/kg	0.0017	ND
Dibromochloromethane	0.761	mg/kg	0.0017	ND
Dichlorodifluoromethane	0.761	mg/kg	0.0017	ND
Ethylbenzene	0.761	mg/kg	0.00085	ND
Isopropylbenzene	0.761	mg/kg	0.00085	ND
m&p-Xylenes	0.761	mg/kg	0.00085	ND
Methyl Acetate	0.761	mg/kg	0.0017	ND
Methylcyclohexane	0.761	mg/kg	0.0017	ND
Methylene chloride	0.761	mg/kg	0.0017	ND
Methyl-t-butyl ether	0.761	mg/kg	0.00085	ND
o-Xylene	0.761	mg/kg	0.00085	ND
Styrene	0.761	mg/kg	0.0017	ND
Tetrachloroethene	0.761	mg/kg	0.0017	ND
Toluene	0.761	mg/kg	0.00085	ND
trans-1,2-Dichloroethene	0.761	mg/kg	0.0017	ND
trans-1,3-Dichloropropene	0.761	mg/kg	0.0017	ND
Trichloroethene	0.761	mg/kg	0.0017	ND
Trichlorofluoromethane	0.761	mg/kg	0.0017	ND
Vinyl chloride	0.761	mg/kg	0.0017	ND
Xylenes (Total)	0.761	mg/kg	0.00085	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.06	30	68	122	90	
Dibromofluoromethane	30.58	30	63	140	102	
Bromofluorobenzene	29.97	30	64	129	100	
1,2-Dichloroethane-d4	30.22	30	63	143	101	

**Volatile Organics + 15 (8260) Library Searches**

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	0.761	mg/kg	NA	ND
TotalVolatileTic	0.761	mg/kg	NA	ND

Sample ID: B-4A  
 Lab#: AD15423-003  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		91

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	5	mg/kg	0.18	ND		
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.18	ND		
1-Methylnaphthalene	5	mg/kg	0.18	ND		
2,4-Dinitrotoluene	5	mg/kg	0.18	ND		
2,6-Dinitrotoluene	5	mg/kg	0.18	ND		
2-Chloronaphthalene	5	mg/kg	0.18	ND		
2-Methylnaphthalene	5	mg/kg	0.18	ND		
2-Nitroaniline	5	mg/kg	0.18	ND		
3,3'-Dichlorobenzidine	5	mg/kg	0.18	ND		
3-Nitroaniline	5	mg/kg	0.18	ND		
4-Bromophenyl-phenylether	5	mg/kg	0.18	ND		
4-Chloroaniline	5	mg/kg	0.046	ND		
4-Chlorophenyl-phenylether	5	mg/kg	0.18	ND		
4-Nitroaniline	5	mg/kg	0.18	ND		
Acenaphthene	5	mg/kg	0.18	ND		
Acenaphthylene	5	mg/kg	0.18	ND		
Acetophenone	5	mg/kg	0.18	ND		
<b>Anthracene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>0.24</b>		
Atrazine	5	mg/kg	0.18	ND		
Benzaldehyde	5	mg/kg	0.18	ND		
<b>Benzo[a]anthracene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>0.79</b>		
<b>Benzo[a]pyrene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>0.89</b>		
<b>Benzo[b]fluoranthene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>1.1</b>		
<b>Benzo[g,h,i]perylene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>0.43</b>		
<b>Benzo[k]fluoranthene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>0.39</b>		
bis(2-Chloroethoxy)methane	5	mg/kg	0.18	ND		
bis(2-Chloroethyl)ether	5	mg/kg	0.046	ND		
bis(2-Chloroisopropyl)ether	5	mg/kg	0.18	ND		
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.18	ND		
Butylbenzylphthalate	5	mg/kg	0.18	ND		
Caprolactam	5	mg/kg	0.18	ND		
Carbazole	5	mg/kg	0.18	ND		
<b>Chrysene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>0.82</b>		
Dibenzo[a,h]anthracene	5	mg/kg	0.18	ND		
<b>Dibenzofuran</b>	<b>5</b>	<b>mg/kg</b>	<b>0.046</b>	<b>0.089</b>		
Diethylphthalate	5	mg/kg	0.18	ND		
Dimethylphthalate	5	mg/kg	0.18	ND		
Di-n-butylphthalate	5	mg/kg	0.046	ND		
Di-n-octylphthalate	5	mg/kg	0.18	ND		
<b>Fluoranthene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>1.4</b>		
Fluorene	5	mg/kg	0.18	ND		
Hexachlorobenzene	5	mg/kg	0.18	ND		
Hexachlorobutadiene	5	mg/kg	0.18	ND		
Hexachlorocyclopentadiene	5	mg/kg	0.18	ND		
Hexachloroethane	5	mg/kg	0.18	ND		
<b>Indeno[1,2,3-cd]pyrene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>0.35</b>		
Isophorone	5	mg/kg	0.18	ND		
<b>Naphthalene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.046</b>	<b>0.099</b>		
Nitrobenzene	5	mg/kg	0.18	ND		
N-Nitroso-di-n-propylamine	5	mg/kg	0.046	ND		
N-Nitrosodiphenylamine	5	mg/kg	0.18	ND		
<b>Phenanthrene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.18</b>	<b>1.1</b>		
Pyrene	5	mg/kg	0.18	1.5		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	10.23	50	58	148	102	
Nitrobenzene-d5	7.93	50	52	129	79	
2-Fluorobiphenyl	8.49	50	58	125	85	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
4H-Cyclopenta[def]phenanthrene	5	mg/kg	10.39	0.42J

Sample ID: B-4A  
 Lab#: AD15423-003  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

9-Octadecenamide, (Z)-	5	mg/kg	12.12	0.40J
Benzo[e]pyrene	5	mg/kg	14.26	0.57J
2-Pentanone, 4-hydroxy-4-methyl-	5	mg/kg	4.3	4.9JAB
TotalSemiVolatileTic	5	mg/kg	NA	6.3J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.092	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	66	270		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	90.94	100	40	140	91	
1-Chlorooctadecane	87.21	100	40	140	87	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	139.58	100	37	141	140	
TCMX-Surrogate	142.51	100	37	141	143	S8
DCB-Surrogate	85.53	100	34	146	86	
DCB-Surrogate	93.62	100	34	146	94	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	220	6200
Barium	1	mg/kg	11	41
Calcium	1	mg/kg	1100	2300
Chromium	1	mg/kg	5.5	16
Cobalt	1	mg/kg	2.7	3.9
Copper	1	mg/kg	5.5	16
Iron	1	mg/kg	220	13000
Lead	1	mg/kg	5.5	57
Magnesium	1	mg/kg	550	1900
Manganese	1	mg/kg	11	110
Nickel	1	mg/kg	5.5	7.4
Potassium	1	mg/kg	550	610
Sodium	1	mg/kg	270	440
Vanadium	1	mg/kg	11	19
Zinc	1	mg/kg	11	54

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.88	ND
Arsenic	1	mg/kg	0.22	3.1
Beryllium	1	mg/kg	0.22	0.28
Cadmium	1	mg/kg	0.44	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.835	mg/kg	0.0018	ND
1,1,2,2-Tetrachloroethane	0.835	mg/kg	0.0018	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.835	mg/kg	0.0018	ND

Sample ID: B-4A

Lab#: AD15423-003

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

1,1,2-Trichloroethane	0.835	mg/kg	0.0018	ND		
1,1-Dichloroethane	0.835	mg/kg	0.0018	ND		
1,1-Dichloroethene	0.835	mg/kg	0.0018	ND		
1,2,3-Trichlorobenzene	0.835	mg/kg	0.0018	ND		
1,2,4-Trichlorobenzene	0.835	mg/kg	0.0018	ND		
1,2,4-Trimethylbenzene	0.835	mg/kg	0.00092	ND		
1,2-Dibromo-3-chloropropane	0.835	mg/kg	0.0018	ND		
1,2-Dibromoethane	0.835	mg/kg	0.00072	ND		
1,2-Dichlorobenzene	0.835	mg/kg	0.0018	ND		
1,2-Dichloroethane	0.835	mg/kg	0.0018	ND		
1,2-Dichloropropane	0.835	mg/kg	0.0018	ND		
1,3-Dichlorobenzene	0.835	mg/kg	0.0018	ND		
1,4-Dichlorobenzene	0.835	mg/kg	0.0018	ND		
1,4-Dioxane	0.835	mg/kg	0.092	ND		
2-Butanone	0.835	mg/kg	0.0018	ND		
2-Hexanone	0.835	mg/kg	0.0018	ND		
4-Methyl-2-pentanone	0.835	mg/kg	0.0018	ND		
Acetone	0.835	mg/kg	0.0092	ND		
Benzene	0.835	mg/kg	0.00092	ND		
Bromochloromethane	0.835	mg/kg	0.0018	ND		
Bromodichloromethane	0.835	mg/kg	0.0018	ND		
Bromoform	0.835	mg/kg	0.0018	ND		
Bromomethane	0.835	mg/kg	0.0018	ND		
Carbon disulfide	0.835	mg/kg	0.0018	ND		
Carbon tetrachloride	0.835	mg/kg	0.0018	ND		
Chlorobenzene	0.835	mg/kg	0.0018	ND		
Chloroethane	0.835	mg/kg	0.0018	ND		
Chloroform	0.835	mg/kg	0.0018	ND		
Chloromethane	0.835	mg/kg	0.0018	ND		
cis-1,2-Dichloroethene	0.835	mg/kg	0.0018	ND		
cis-1,3-Dichloropropene	0.835	mg/kg	0.0018	ND		
Cyclohexane	0.835	mg/kg	0.0018	ND		
Dibromochloromethane	0.835	mg/kg	0.0018	ND		
Dichlorodifluoromethane	0.835	mg/kg	0.0018	ND		
Ethylbenzene	0.835	mg/kg	0.00092	ND		
Isopropylbenzene	0.835	mg/kg	0.00092	ND		
m&p-Xylenes	0.835	mg/kg	0.00092	ND		
Methyl Acetate	0.835	mg/kg	0.0018	ND		
Methylcyclohexane	0.835	mg/kg	0.0018	ND		
Methylene chloride	0.835	mg/kg	0.0018	ND		
Methyl-t-butyl ether	0.835	mg/kg	0.00092	ND		
o-Xylene	0.835	mg/kg	0.00092	ND		
Styrene	0.835	mg/kg	0.0018	ND		
Tetrachloroethene	0.835	mg/kg	0.0018	ND		
Toluene	0.835	mg/kg	0.00092	ND		
trans-1,2-Dichloroethene	0.835	mg/kg	0.0018	ND		
trans-1,3-Dichloropropene	0.835	mg/kg	0.0018	ND		
Trichloroethene	0.835	mg/kg	0.0018	ND		
Trichlorofluoromethane	0.835	mg/kg	0.0018	ND		
Vinyl chloride	0.835	mg/kg	0.0018	ND		
Xylenes (Total)	0.835	mg/kg	0.00092	ND		
<b>Surrogate</b>	<b>Conc.</b>	<b>Spike</b>	<b>Low Limit</b>	<b>High Limit</b>	<b>Recovery</b>	<b>Flags</b>
Toluene-d8	28.18	30	68	122	94	
Dibromofluoromethane	31.52	30	63	140	105	
Bromofluorobenzene	33.26	30	64	129	111	
1,2-Dichloroethane-d4	29.75	30	63	143	99	

**Volatile Organics + 15 (8260) Library Searches**

Analyte	DF	Units	RT	Result
Naphthalene, 2-methyl-	0.835	mg/kg	10.07	0.0066J
Naphthalene, 1-methyl-	0.835	mg/kg	10.2	0.0036J
Naphthalene	0.835	mg/kg	9.4	0.015J
Tridecane	0.835	mg/kg	9.48	0.0034J
Total Volatile Tic	0.835	mg/kg	NA	0.029J

Sample ID: B-4B  
 Lab#: AD15423-004  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		91

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	30	mg/kg	1.1	1.2		
1,2,4,5-Tetrachlorobenzene	30	mg/kg	1.1	ND		
1-Methylnaphthalene	30	mg/kg	1.1	3.9		
2,4-Dinitrotoluene	30	mg/kg	1.1	ND		
2,6-Dinitrotoluene	30	mg/kg	1.1	ND		
2-Chloronaphthalene	30	mg/kg	1.1	ND		
2-Methylnaphthalene	30	mg/kg	1.1	4.6		
2-Nitroaniline	30	mg/kg	1.1	ND		
3,3'-Dichlorobenzidine	30	mg/kg	1.1	ND		
3-Nitroaniline	30	mg/kg	1.1	ND		
4-Bromophenyl-phenylether	30	mg/kg	1.1	ND		
4-Chloroaniline	30	mg/kg	0.27	ND		
4-Chlorophenyl-phenylether	30	mg/kg	1.1	ND		
4-Nitroaniline	30	mg/kg	1.1	ND		
Acenaphthene	30	mg/kg	1.1	4.8		
Acenaphthylene	30	mg/kg	1.1	1.7		
Acetophenone	30	mg/kg	1.1	ND		
Anthracene	30	mg/kg	1.1	12		
Atrazine	30	mg/kg	1.1	ND		
Benzaldehyde	30	mg/kg	1.1	ND		
Benzo[a]anthracene	30	mg/kg	1.1	23		
Benzo[a]pyrene	30	mg/kg	1.1	20		
Benzo[b]fluoranthene	30	mg/kg	1.1	24		
Benzo[g,h,i]perylene	30	mg/kg	1.1	8.2		
Benzo[k]fluoranthene	30	mg/kg	1.1	8.2		
bis(2-Chloroethoxy)methane	30	mg/kg	1.1	ND		
bis(2-Chloroethyl)ether	30	mg/kg	0.27	ND		
bis(2-Chloroisopropyl)ether	30	mg/kg	1.1	ND		
bis(2-Ethylhexyl)phthalate	30	mg/kg	1.1	ND		
Butylbenzylphthalate	30	mg/kg	1.1	ND		
Caprolactam	30	mg/kg	1.1	ND		
Carbazole	30	mg/kg	1.1	8.4		
Chrysene	30	mg/kg	1.1	21		
Dibenzo[a,h]anthracene	30	mg/kg	1.1	2.4		
Dibenzofuran	30	mg/kg	0.27	7.2		
Diethylphthalate	30	mg/kg	1.1	ND		
Dimethylphthalate	30	mg/kg	1.1	ND		
Di-n-butylphthalate	30	mg/kg	0.27	ND		
Di-n-octylphthalate	30	mg/kg	1.1	ND		
Fluoranthene	30	mg/kg	1.1	56		
Fluorene	30	mg/kg	1.1	14		
Hexachlorobenzene	30	mg/kg	1.1	ND		
Hexachlorobutadiene	30	mg/kg	1.1	ND		
Hexachlorocyclopentadiene	30	mg/kg	1.1	ND		
Hexachloroethane	30	mg/kg	1.1	ND		
Indeno[1,2,3-cd]pyrene	30	mg/kg	1.1	8.3		
Isophorone	30	mg/kg	1.1	ND		
Naphthalene	30	mg/kg	0.27	8.1		
Nitrobenzene	30	mg/kg	1.1	ND		
N-Nitroso-di-n-propylamine	30	mg/kg	0.27	ND		
N-Nitrosodiphenylamine	30	mg/kg	1.1	ND		
Phenanthrene	30	mg/kg	1.1	71		
Pyrene	30	mg/kg	1.1	50		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	0.00	50	58	148	0	Sb8
Nitrobenzene-d5	0.00	50	52	129	0	Sb8
2-Fluorobiphenyl	0.00	50	58	125	0	Sb8

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
Anthracene, 2-methyl-	30	mg/kg	10.27	7.6J

Sample ID: B-4B  
 Lab#: AD15423-004  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

Phenanthrene, 9-methyl-	30	mg/kg	10.3	9.0J
4H-Cyclopenta[def]phenanthrene	30	mg/kg	10.4	17J
2-PHENYLNAPHTHALENE	30	mg/kg	10.61	6.3J
11H-Benzo[a]fluorene	30	mg/kg	11.74	5.5J
Benzo[e]pyrene	30	mg/kg	14.09	4.8J
Perylene	30	mg/kg	14.27	12J
unknown	30	mg/kg	15.94	5.2J
unknown	30	mg/kg	16.27	4.2J
2-Pentanone, 4-hydroxy-4-methyl-	30	mg/kg	4.3	7.0JAB
Naphthalene, 2,3-dimethyl-	30	mg/kg	7.97	4.9J
Dibenzofuran, 4-methyl-	30	mg/kg	9.01	4.6J
9H-Fluorene, 4-methyl-	30	mg/kg	9.32	3.9J
Dibenzothiophene	30	mg/kg	9.61	5.3J
TotalSemiVolatileTic	30	mg/kg	NA	97J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.092	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	66	720		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	111.96	100	40	140	112	
1-Chlorooctadecane	117.24	100	40	140	117	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	129.52	100	37	141	130	
TCMX-Surrogate	134.77	100	37	141	135	
DCB-Surrogate	85.74	100	34	146	86	
DCB-Surrogate	96.33	100	34	146	96	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	220	4700
Barium	1	mg/kg	11	34
Calcium	1	mg/kg	1100	2400
Chromium	1	mg/kg	5.5	8.8
Cobalt	1	mg/kg	2.7	3.8
Copper	1	mg/kg	5.5	15
Iron	1	mg/kg	220	11000
Lead	1	mg/kg	5.5	62
Magnesium	1	mg/kg	550	1900
Manganese	1	mg/kg	11	130
Nickel	1	mg/kg	5.5	6.5
Potassium	1	mg/kg	550	ND
Sodium	1	mg/kg	270	ND
Vanadium	1	mg/kg	11	15
Zinc	1	mg/kg	11	52

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.88	ND
Arsenic	1	mg/kg	0.22	3.6
Beryllium	1	mg/kg	0.22	0.30
Cadmium	1	mg/kg	0.44	ND



Sample ID: B-4B  
 Lab#: AD15423-004  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.965	mg/kg	0.0021	ND		
1,1,2,2-Tetrachloroethane	0.965	mg/kg	0.0021	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.965	mg/kg	0.0021	ND		
1,1,2-Trichloroethane	0.965	mg/kg	0.0021	ND		
1,1-Dichloroethane	0.965	mg/kg	0.0021	ND		
1,1-Dichloroethene	0.965	mg/kg	0.0021	ND		
1,2,3-Trichlorobenzene	0.965	mg/kg	0.0021	ND		
1,2,4-Trichlorobenzene	0.965	mg/kg	0.0021	ND		
<b>1,2,4-Trimethylbenzene</b>	<b>0.965</b>	<b>mg/kg</b>	<b>0.0011</b>	<b>0.0070</b>		
1,2-Dibromo-3-chloropropane	0.965	mg/kg	0.0021	ND		
1,2-Dibromoethane	0.965	mg/kg	0.00083	ND		
1,2-Dichlorobenzene	0.965	mg/kg	0.0021	ND		
1,2-Dichloroethane	0.965	mg/kg	0.0021	ND		
1,2-Dichloropropane	0.965	mg/kg	0.0021	ND		
1,3-Dichlorobenzene	0.965	mg/kg	0.0021	ND		
1,4-Dichlorobenzene	0.965	mg/kg	0.0021	ND		
1,4-Dioxane	0.965	mg/kg	0.11	ND		
2-Butanone	0.965	mg/kg	0.0021	ND		
2-Hexanone	0.965	mg/kg	0.0021	ND		
4-Methyl-2-pentanone	0.965	mg/kg	0.0021	ND		
Acetone	0.965	mg/kg	0.011	ND		
Benzene	0.965	mg/kg	0.0011	ND		
Bromochloromethane	0.965	mg/kg	0.0021	ND		
Bromodichloromethane	0.965	mg/kg	0.0021	ND		
Bromoform	0.965	mg/kg	0.0021	ND		
Bromomethane	0.965	mg/kg	0.0021	ND		
Carbon disulfide	0.965	mg/kg	0.0021	ND		
Carbon tetrachloride	0.965	mg/kg	0.0021	ND		
Chlorobenzene	0.965	mg/kg	0.0021	ND		
Chloroethane	0.965	mg/kg	0.0021	ND		
Chloroform	0.965	mg/kg	0.0021	ND		
Chloromethane	0.965	mg/kg	0.0021	ND		
cis-1,2-Dichloroethene	0.965	mg/kg	0.0021	ND		
cis-1,3-Dichloropropene	0.965	mg/kg	0.0021	ND		
Cyclohexane	0.965	mg/kg	0.0021	ND		
Dibromochloromethane	0.965	mg/kg	0.0021	ND		
Dichlorodifluoromethane	0.965	mg/kg	0.0021	ND		
Ethylbenzene	0.965	mg/kg	0.0011	ND		
Isopropylbenzene	0.965	mg/kg	0.0011	ND		
<b>m&amp;p-Xylenes</b>	<b>0.965</b>	<b>mg/kg</b>	<b>0.0011</b>	<b>0.0011</b>		
Methyl Acetate	0.965	mg/kg	0.0021	ND		
Methylcyclohexane	0.965	mg/kg	0.0021	ND		
Methylene chloride	0.965	mg/kg	0.0021	ND		
Methyl-t-butyl ether	0.965	mg/kg	0.0011	ND		
<b>o-Xylene</b>	<b>0.965</b>	<b>mg/kg</b>	<b>0.0011</b>	<b>0.0014</b>		
Styrene	0.965	mg/kg	0.0021	ND		
Tetrachloroethene	0.965	mg/kg	0.0021	ND		
Toluene	0.965	mg/kg	0.0011	ND		
trans-1,2-Dichloroethene	0.965	mg/kg	0.0021	ND		
trans-1,3-Dichloropropene	0.965	mg/kg	0.0021	ND		
Trichloroethene	0.965	mg/kg	0.0021	ND		
Trichlorofluoromethane	0.965	mg/kg	0.0021	ND		
Vinyl chloride	0.965	mg/kg	0.0021	ND		
<b>Xylenes (Total)</b>	<b>0.965</b>	<b>mg/kg</b>	<b>0.0011</b>	<b>0.0025</b>		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.50	30	68	122	92	
Dibromofluoromethane	31.49	30	63	140	105	
Bromofluorobenzene	32.92	30	64	129	110	
1,2-Dichloroethane-d4	31.05	30	63	143	103	

**Volatile Organics + 15 (8260) Library Searches**

Analyte	DF	Units	RT	Result
Naphthalene, 1-methyl-	0.965	mg/kg	10.07	0.044J

Sample ID: B-4B  
Lab#: AD15423-004  
Matrix: Soil/Encore

Collection Date: 1/28/2020  
Receipt Date: 1/29/2020

Naphthalene, 1-methyl-	0.965	mg/kg	10.2	0.028J
unknown	0.965	mg/kg	8.21	0.0036J
1H-Indene	0.965	mg/kg	8.34	0.0060J
Benzene, 1-ethyl-3,5-dimethyl-	0.965	mg/kg	8.98	0.0041J
Naphthalene	0.965	mg/kg	9.4	0.19J
Benzo[b]cyclobuta[d]thiophene-1,2-dicar	0.965	mg/kg	9.48	0.0053J
TotalVolatileTic	0.965	mg/kg	NA	0.28J

Sample ID: B-12A  
 Lab#: AD15423-005  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		81

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	mg/kg	0.041	ND		
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.041	ND		
1-Methylnaphthalene	1	mg/kg	0.041	ND		
2,4-Dinitrotoluene	1	mg/kg	0.041	ND		
2,6-Dinitrotoluene	1	mg/kg	0.041	ND		
2-Chloronaphthalene	1	mg/kg	0.041	ND		
2-Methylnaphthalene	1	mg/kg	0.041	ND		
2-Nitroaniline	1	mg/kg	0.041	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.041	ND		
3-Nitroaniline	1	mg/kg	0.041	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.041	ND		
4-Chloroaniline	1	mg/kg	0.010	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.041	ND		
4-Nitroaniline	1	mg/kg	0.041	ND		
Acenaphthene	1	mg/kg	0.041	ND		
Acenaphthylene	1	mg/kg	0.041	ND		
Acetophenone	1	mg/kg	0.041	ND		
Anthracene	1	mg/kg	0.041	ND		
Atrazine	1	mg/kg	0.041	ND		
Benzaldehyde	1	mg/kg	0.041	ND		
Benzo[a]anthracene	1	mg/kg	0.041	ND		
Benzo[a]pyrene	1	mg/kg	0.041	ND		
Benzo[b]fluoranthene	1	mg/kg	0.041	ND		
Benzo[g,h,i]perylene	1	mg/kg	0.041	ND		
Benzo[k]fluoranthene	1	mg/kg	0.041	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.041	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.010	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.041	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.041	ND		
Butylbenzylphthalate	1	mg/kg	0.041	ND		
Caprolactam	1	mg/kg	0.041	ND		
Carbazole	1	mg/kg	0.041	ND		
Chrysene	1	mg/kg	0.041	ND		
Dibenzo[a,h]anthracene	1	mg/kg	0.041	ND		
Dibenzofuran	1	mg/kg	0.010	ND		
Diethylphthalate	1	mg/kg	0.041	ND		
Dimethylphthalate	1	mg/kg	0.041	ND		
Di-n-butylphthalate	1	mg/kg	0.010	ND		
Di-n-octylphthalate	1	mg/kg	0.041	ND		
Fluoranthene	1	mg/kg	0.041	ND		
Fluorene	1	mg/kg	0.041	ND		
Hexachlorobenzene	1	mg/kg	0.041	ND		
Hexachlorobutadiene	1	mg/kg	0.041	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.041	ND		
Hexachloroethane	1	mg/kg	0.041	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.041	ND		
Isophorone	1	mg/kg	0.041	ND		
Naphthalene	1	mg/kg	0.010	ND		
Nitrobenzene	1	mg/kg	0.041	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.010	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.041	ND		
Phenanthrene	1	mg/kg	0.041	ND		
Pyrene	1	mg/kg	0.041	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	44.54	50	58	148	89	
Nitrobenzene-d5	37.80	50	52	129	76	
2-Fluorobiphenyl	39.06	50	58	125	78	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
9-Octadecenamide, (Z)-	1	mg/kg	12.12	0.28J

Sample ID: B-12A  
 Lab#: AD15423-005  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.31	5.8JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.25	0.17JB
Benzene, 1-ethyl-3-methyl-	1	mg/kg	5.44	0.19J
Benzene, 1,3,5-trimethyl-	1	mg/kg	5.51	0.13J
Benzene, 1,2,4-trimethyl-	1	mg/kg	5.7	0.23J
Ethane, 1-ethoxy-1-methoxy-	1	mg/kg	5.77	0.31JB
TotalSemiVolatileTic	1	mg/kg	NA	7.1J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	74	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	82.55	100	40	140	83	
1-Chlorooctadecane	77.85	100	40	140	78	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.031	ND		
Aroclor-1016	1	mg/kg	0.031	ND		
Aroclor-1221	1	mg/kg	0.031	ND		
Aroclor-1232	1	mg/kg	0.031	ND		
Aroclor-1242	1	mg/kg	0.031	ND		
Aroclor-1248	1	mg/kg	0.031	ND		
Aroclor-1254	1	mg/kg	0.031	ND		
Aroclor-1260	1	mg/kg	0.031	ND		
Aroclor-1262	1	mg/kg	0.031	ND		
Aroclor-1268	1	mg/kg	0.031	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	131.35	100	37	141	131	
TCMX-Surrogate	119.74	100	37	141	120	
DCB-Surrogate	129.85	100	34	146	130	
DCB-Surrogate	108.10	100	34	146	108	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	250	5400
Barium	1	mg/kg	12	22
Calcium	1	mg/kg	1200	ND
Chromium	1	mg/kg	6.2	9.0
Cobalt	1	mg/kg	3.1	3.7
Copper	1	mg/kg	6.2	ND
Iron	1	mg/kg	250	11000
Lead	1	mg/kg	6.2	20
Magnesium	1	mg/kg	620	1400
Manganese	1	mg/kg	12	82
Nickel	1	mg/kg	6.2	7.4
Potassium	1	mg/kg	620	ND
Sodium	1	mg/kg	310	520
Vanadium	1	mg/kg	12	13
Zinc	1	mg/kg	12	34

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.99	ND
Arsenic	1	mg/kg	0.25	2.7
Beryllium	1	mg/kg	0.25	ND
Cadmium	1	mg/kg	0.49	ND
Selenium	1	mg/kg	2.5	ND
Silver	1	mg/kg	0.25	ND
Thallium	1	mg/kg	0.49	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
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Sample ID: B-12A

Lab#: AD15423-005

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

1,1,1-Trichloroethane	0.804	mg/kg	0.0020	ND
1,1,2,2-Tetrachloroethane	0.804	mg/kg	0.0020	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.804	mg/kg	0.0020	ND
1,1,2-Trichloroethane	0.804	mg/kg	0.0020	ND
1,1-Dichloroethane	0.804	mg/kg	0.0020	ND
1,1-Dichloroethene	0.804	mg/kg	0.0020	ND
1,2,3-Trichlorobenzene	0.804	mg/kg	0.0020	ND
1,2,4-Trichlorobenzene	0.804	mg/kg	0.0020	ND
1,2,4-Trimethylbenzene	0.804	mg/kg	0.00099	ND
1,2-Dibromo-3-chloropropane	0.804	mg/kg	0.0020	ND
1,2-Dibromoethane	0.804	mg/kg	0.00077	ND
1,2-Dichlorobenzene	0.804	mg/kg	0.0020	ND
1,2-Dichloroethane	0.804	mg/kg	0.0020	ND
1,2-Dichloropropane	0.804	mg/kg	0.0020	ND
1,3-Dichlorobenzene	0.804	mg/kg	0.0020	ND
1,4-Dichlorobenzene	0.804	mg/kg	0.0020	ND
1,4-Dioxane	0.804	mg/kg	0.099	ND
2-Butanone	0.804	mg/kg	0.0020	ND
2-Hexanone	0.804	mg/kg	0.0020	ND
4-Methyl-2-pentanone	0.804	mg/kg	0.0020	ND
Acetone	0.804	mg/kg	0.0099	ND
Benzene	0.804	mg/kg	0.00099	ND
Bromochloromethane	0.804	mg/kg	0.0020	ND
Bromodichloromethane	0.804	mg/kg	0.0020	ND
Bromoform	0.804	mg/kg	0.0020	ND
Bromomethane	0.804	mg/kg	0.0020	ND
Carbon disulfide	0.804	mg/kg	0.0020	ND
Carbon tetrachloride	0.804	mg/kg	0.0020	ND
Chlorobenzene	0.804	mg/kg	0.0020	ND
Chloroethane	0.804	mg/kg	0.0020	ND
Chloroform	0.804	mg/kg	0.0020	ND
Chloromethane	0.804	mg/kg	0.0020	ND
cis-1,2-Dichloroethene	0.804	mg/kg	0.0020	ND
cis-1,3-Dichloropropene	0.804	mg/kg	0.0020	ND
Cyclohexane	0.804	mg/kg	0.0020	ND
Dibromochloromethane	0.804	mg/kg	0.0020	ND
Dichlorodifluoromethane	0.804	mg/kg	0.0020	ND
Ethylbenzene	0.804	mg/kg	0.00099	ND
Isopropylbenzene	0.804	mg/kg	0.00099	ND
m&p-Xylenes	0.804	mg/kg	0.00099	ND
Methyl Acetate	0.804	mg/kg	0.0020	ND
Methylcyclohexane	0.804	mg/kg	0.0020	ND
Methylene chloride	0.804	mg/kg	0.0020	ND
Methyl-t-butyl ether	0.804	mg/kg	0.00099	ND
o-Xylene	0.804	mg/kg	0.00099	ND
Styrene	0.804	mg/kg	0.0020	ND
Tetrachloroethene	0.804	mg/kg	0.0020	ND
Toluene	0.804	mg/kg	0.00099	ND
trans-1,2-Dichloroethene	0.804	mg/kg	0.0020	ND
trans-1,3-Dichloropropene	0.804	mg/kg	0.0020	ND
Trichloroethene	0.804	mg/kg	0.0020	ND
Trichlorofluoromethane	0.804	mg/kg	0.0020	ND
Vinyl chloride	0.804	mg/kg	0.0020	ND
Xylenes (Total)	0.804	mg/kg	0.00099	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.32	30	68	122	91	
Dibromofluoromethane	30.11	30	63	140	100	
Bromofluorobenzene	29.35	30	64	129	98	
1,2-Dichloroethane-d4	31.05	30	63	143	104	

**Volatile Organics + 15 (8260) Library Searches**

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	0.804	mg/kg	NA	ND
TotalVolatileTic	0.804	mg/kg	NA	ND

Sample ID: B-12B  
 Lab#: AD15423-006  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		92

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	mg/kg	0.036	ND		
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.036	ND		
1-Methylnaphthalene	1	mg/kg	0.036	ND		
2,4-Dinitrotoluene	1	mg/kg	0.036	ND		
2,6-Dinitrotoluene	1	mg/kg	0.036	ND		
2-Chloronaphthalene	1	mg/kg	0.036	ND		
2-Methylnaphthalene	1	mg/kg	0.036	ND		
2-Nitroaniline	1	mg/kg	0.036	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.036	ND		
3-Nitroaniline	1	mg/kg	0.036	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.036	ND		
4-Chloroaniline	1	mg/kg	0.0091	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.036	ND		
4-Nitroaniline	1	mg/kg	0.036	ND		
Acenaphthene	1	mg/kg	0.036	ND		
Acenaphthylene	1	mg/kg	0.036	ND		
Acetophenone	1	mg/kg	0.036	ND		
Anthracene	1	mg/kg	0.036	ND		
Atrazine	1	mg/kg	0.036	ND		
Benzaldehyde	1	mg/kg	0.036	ND		
Benzo[a]anthracene	1	mg/kg	0.036	ND		
Benzo[a]pyrene	1	mg/kg	0.036	ND		
Benzo[b]fluoranthene	1	mg/kg	0.036	ND		
Benzo[g,h,i]perylene	1	mg/kg	0.036	ND		
Benzo[k]fluoranthene	1	mg/kg	0.036	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.036	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0091	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.036	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.036	ND		
Butylbenzylphthalate	1	mg/kg	0.036	ND		
Caprolactam	1	mg/kg	0.036	ND		
Carbazole	1	mg/kg	0.036	ND		
Chrysene	1	mg/kg	0.036	ND		
Dibenzo[a,h]anthracene	1	mg/kg	0.036	ND		
Dibenzofuran	1	mg/kg	0.0091	ND		
Diethylphthalate	1	mg/kg	0.036	ND		
Dimethylphthalate	1	mg/kg	0.036	ND		
Di-n-butylphthalate	1	mg/kg	0.0091	ND		
Di-n-octylphthalate	1	mg/kg	0.036	ND		
Fluoranthene	1	mg/kg	0.036	ND		
Fluorene	1	mg/kg	0.036	ND		
Hexachlorobenzene	1	mg/kg	0.036	ND		
Hexachlorobutadiene	1	mg/kg	0.036	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.036	ND		
Hexachloroethane	1	mg/kg	0.036	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.036	ND		
Isophorone	1	mg/kg	0.036	ND		
Naphthalene	1	mg/kg	0.0091	ND		
Nitrobenzene	1	mg/kg	0.036	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0091	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.036	ND		
Phenanthrene	1	mg/kg	0.036	ND		
Pyrene	1	mg/kg	0.036	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	52.31	50	58	148	105	
Nitrobenzene-d5	44.01	50	52	129	88	
2-Fluorobiphenyl	40.42	50	58	125	81	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
Dodecanamide	1	mg/kg	12.09	0.65J

Sample ID: B-12B  
 Lab#: AD15423-006  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

Butane, 2-methoxy-2-methyl-	1	mg/kg	2.34	0.085J
2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.31	5.9JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.24	0.10JB
Benzene, 1-ethyl-3-methyl-	1	mg/kg	5.42	0.078J
Benzene, 1,2,4-trimethyl-	1	mg/kg	5.67	0.17JB
Ethane, 1-ethoxy-1-methoxy-	1	mg/kg	5.75	0.19JB
TotalSemiVolatileTic	1	mg/kg	NA	7.2J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.091	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	65	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	92.79	100	40	140	93	
1-Chlorooctadecane	90.54	100	40	140	91	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	209.88	100	37	141	210	S8
TCMX-Surrogate	180.59	100	37	141	181	S8
DCB-Surrogate	202.62	100	34	146	203	S8
DCB-Surrogate	163.48	100	34	146	163	S8

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	220	3900
Barium	1	mg/kg	11	13
Calcium	1	mg/kg	1100	ND
Chromium	1	mg/kg	5.4	12
Cobalt	1	mg/kg	2.7	ND
Copper	1	mg/kg	5.4	ND
Iron	1	mg/kg	220	10000
Lead	1	mg/kg	5.4	ND
Magnesium	1	mg/kg	540	750
Manganese	1	mg/kg	11	37
Nickel	1	mg/kg	5.4	ND
Potassium	1	mg/kg	540	540
Sodium	1	mg/kg	270	590
Vanadium	1	mg/kg	11	14
Zinc	1	mg/kg	11	16

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.87	ND
Arsenic	1	mg/kg	0.22	3.3
Beryllium	1	mg/kg	0.22	0.35
Cadmium	1	mg/kg	0.43	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.43	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
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Sample ID: B-12B

Lab#: AD15423-006

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

1,1,1-Trichloroethane	0.842	mg/kg	0.0018	ND
1,1,2,2-Tetrachloroethane	0.842	mg/kg	0.0018	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.842	mg/kg	0.0018	ND
1,1,2-Trichloroethane	0.842	mg/kg	0.0018	ND
1,1-Dichloroethane	0.842	mg/kg	0.0018	ND
1,1-Dichloroethene	0.842	mg/kg	0.0018	ND
1,2,3-Trichlorobenzene	0.842	mg/kg	0.0018	ND
1,2,4-Trichlorobenzene	0.842	mg/kg	0.0018	ND
1,2,4-Trimethylbenzene	0.842	mg/kg	0.00091	ND
1,2-Dibromo-3-chloropropane	0.842	mg/kg	0.0018	ND
1,2-Dibromoethane	0.842	mg/kg	0.00071	ND
1,2-Dichlorobenzene	0.842	mg/kg	0.0018	ND
1,2-Dichloroethane	0.842	mg/kg	0.0018	ND
1,2-Dichloropropane	0.842	mg/kg	0.0018	ND
1,3-Dichlorobenzene	0.842	mg/kg	0.0018	ND
1,4-Dichlorobenzene	0.842	mg/kg	0.0018	ND
1,4-Dioxane	0.842	mg/kg	0.091	ND
2-Butanone	0.842	mg/kg	0.0018	ND
2-Hexanone	0.842	mg/kg	0.0018	ND
4-Methyl-2-pentanone	0.842	mg/kg	0.0018	ND
Acetone	0.842	mg/kg	0.0091	ND
Benzene	0.842	mg/kg	0.00091	ND
Bromochloromethane	0.842	mg/kg	0.0018	ND
Bromodichloromethane	0.842	mg/kg	0.0018	ND
Bromoform	0.842	mg/kg	0.0018	ND
Bromomethane	0.842	mg/kg	0.0018	ND
Carbon disulfide	0.842	mg/kg	0.0018	ND
Carbon tetrachloride	0.842	mg/kg	0.0018	ND
Chlorobenzene	0.842	mg/kg	0.0018	ND
Chloroethane	0.842	mg/kg	0.0018	ND
Chloroform	0.842	mg/kg	0.0018	ND
Chloromethane	0.842	mg/kg	0.0018	ND
cis-1,2-Dichloroethene	0.842	mg/kg	0.0018	ND
cis-1,3-Dichloropropene	0.842	mg/kg	0.0018	ND
Cyclohexane	0.842	mg/kg	0.0018	ND
Dibromochloromethane	0.842	mg/kg	0.0018	ND
Dichlorodifluoromethane	0.842	mg/kg	0.0018	ND
Ethylbenzene	0.842	mg/kg	0.00091	ND
Isopropylbenzene	0.842	mg/kg	0.00091	ND
m&p-Xylenes	0.842	mg/kg	0.00091	ND
Methyl Acetate	0.842	mg/kg	0.0018	ND
Methylcyclohexane	0.842	mg/kg	0.0018	ND
Methylene chloride	0.842	mg/kg	0.0018	ND
Methyl-t-butyl ether	0.842	mg/kg	0.00091	ND
o-Xylene	0.842	mg/kg	0.00091	ND
Styrene	0.842	mg/kg	0.0018	ND
Tetrachloroethene	0.842	mg/kg	0.0018	ND
Toluene	0.842	mg/kg	0.00091	ND
trans-1,2-Dichloroethene	0.842	mg/kg	0.0018	ND
trans-1,3-Dichloropropene	0.842	mg/kg	0.0018	ND
Trichloroethene	0.842	mg/kg	0.0018	ND
Trichlorofluoromethane	0.842	mg/kg	0.0018	ND
Vinyl chloride	0.842	mg/kg	0.0018	ND
Xylenes (Total)	0.842	mg/kg	0.00091	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.37	30	68	122	88	
Dibromofluoromethane	30.40	30	63	140	101	
Bromofluorobenzene	30.00	30	64	129	100	
1,2-Dichloroethane-d4	29.75	30	63	143	99	

## Volatile Organics + 15 (8260) Library Searches

Analyte	DF	Units	RT	Result
Silane, methoxytrimethyl-	0.842	mg/kg	3.55	0.0073J
unknown	0.842	mg/kg	4.35	0.084J
TotalVolatileTic	0.842	mg/kg	NA	0.091J



Sample ID: B-13A  
 Lab#: AD15423-007  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		90

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	5	mg/kg	0.19	ND		
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.19	ND		
1-Methylnaphthalene	5	mg/kg	0.19	ND		
2,4-Dinitrotoluene	5	mg/kg	0.19	ND		
2,6-Dinitrotoluene	5	mg/kg	0.19	ND		
2-Chloronaphthalene	5	mg/kg	0.19	ND		
2-Methylnaphthalene	5	mg/kg	0.19	ND		
2-Nitroaniline	5	mg/kg	0.19	ND		
3,3'-Dichlorobenzidine	5	mg/kg	0.19	ND		
3-Nitroaniline	5	mg/kg	0.19	ND		
4-Bromophenyl-phenylether	5	mg/kg	0.19	ND		
4-Chloroaniline	5	mg/kg	0.046	ND		
4-Chlorophenyl-phenylether	5	mg/kg	0.19	ND		
4-Nitroaniline	5	mg/kg	0.19	ND		
Acenaphthene	5	mg/kg	0.19	ND		
Acenaphthylene	5	mg/kg	0.19	ND		
Acetophenone	5	mg/kg	0.19	ND		
Anthracene	5	mg/kg	0.19	ND		
Atrazine	5	mg/kg	0.19	ND		
Benzaldehyde	5	mg/kg	0.19	ND		
<b>Benzo[a]anthracene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>0.75</b>		
<b>Benzo[a]pyrene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>0.95</b>		
<b>Benzo[b]fluoranthene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>1.2</b>		
<b>Benzo[g,h,i]perylene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>0.59</b>		
<b>Benzo[k]fluoranthene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>0.29</b>		
bis(2-Chloroethoxy)methane	5	mg/kg	0.19	ND		
bis(2-Chloroethyl)ether	5	mg/kg	0.046	ND		
bis(2-Chloroisopropyl)ether	5	mg/kg	0.19	ND		
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.19	ND		
Butylbenzylphthalate	5	mg/kg	0.19	ND		
Caprolactam	5	mg/kg	0.19	ND		
Carbazole	5	mg/kg	0.19	ND		
<b>Chrysene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>0.81</b>		
Dibenzo[a,h]anthracene	5	mg/kg	0.19	ND		
Dibenzofuran	5	mg/kg	0.046	ND		
Diethylphthalate	5	mg/kg	0.19	ND		
Dimethylphthalate	5	mg/kg	0.19	ND		
Di-n-butylphthalate	5	mg/kg	0.046	ND		
Di-n-octylphthalate	5	mg/kg	0.19	ND		
<b>Fluoranthene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>0.74</b>		
Fluorene	5	mg/kg	0.19	ND		
Hexachlorobenzene	5	mg/kg	0.19	ND		
Hexachlorobutadiene	5	mg/kg	0.19	ND		
Hexachlorocyclopentadiene	5	mg/kg	0.19	ND		
Hexachloroethane	5	mg/kg	0.19	ND		
<b>Indeno[1,2,3-cd]pyrene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>0.48</b>		
Isophorone	5	mg/kg	0.19	ND		
Naphthalene	5	mg/kg	0.046	ND		
Nitrobenzene	5	mg/kg	0.19	ND		
N-Nitroso-di-n-propylamine	5	mg/kg	0.046	ND		
N-Nitrosodiphenylamine	5	mg/kg	0.19	ND		
<b>Phenanthrene</b>	<b>5</b>	<b>mg/kg</b>	<b>0.19</b>	<b>0.25</b>		
Pyrene	5	mg/kg	0.19	1.1		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	8.78	50	58	148	88	
Nitrobenzene-d5	7.64	50	52	129	76	
2-Fluorobiphenyl	7.77	50	58	125	78	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
Perylene	5	mg/kg	14.26	0.92J

Sample ID: B-13A  
 Lab#: AD15423-007  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

unknown	5	mg/kg	16.26	0.47J
2-Pentanone, 4-hydroxy-4-methyl-	5	mg/kg	4.3	5.3JAB
TotalSemiVolatileTic	5	mg/kg	NA	6.7J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.093	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	67	150		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	110.06	100	40	140	110	
1-Chlorooctadecane	104.10	100	40	140	104	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	132.36	100	37	141	132	
TCMX-Surrogate	132.07	100	37	141	132	
DCB-Surrogate	91.70	100	34	146	92	
DCB-Surrogate	98.16	100	34	146	98	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	220	6000
Barium	1	mg/kg	11	34
Calcium	1	mg/kg	1100	1800
Chromium	1	mg/kg	5.6	12
Cobalt	1	mg/kg	2.8	5.6
Copper	1	mg/kg	5.6	19
Iron	1	mg/kg	220	14000
Lead	1	mg/kg	5.6	72
Magnesium	1	mg/kg	560	1900
Manganese	1	mg/kg	11	160
Nickel	1	mg/kg	5.6	8.3
Potassium	1	mg/kg	560	ND
Sodium	1	mg/kg	280	ND
Vanadium	1	mg/kg	11	25
Zinc	1	mg/kg	11	56

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.89	ND
Arsenic	1	mg/kg	0.22	3.6
Beryllium	1	mg/kg	0.22	0.25
Cadmium	1	mg/kg	0.44	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.698	mg/kg	0.0016	ND
1,1,2,2-Tetrachloroethane	0.698	mg/kg	0.0016	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.698	mg/kg	0.0016	ND
1,1,2-Trichloroethane	0.698	mg/kg	0.0016	ND

Sample ID: B-13A

Lab#: AD15423-007

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

1,1-Dichloroethane	0.698	mg/kg	0.0016	ND
1,1-Dichloroethene	0.698	mg/kg	0.0016	ND
1,2,3-Trichlorobenzene	0.698	mg/kg	0.0016	ND
1,2,4-Trichlorobenzene	0.698	mg/kg	0.0016	ND
1,2,4-Trimethylbenzene	0.698	mg/kg	0.00078	ND
1,2-Dibromo-3-chloropropane	0.698	mg/kg	0.0016	ND
1,2-Dibromoethane	0.698	mg/kg	0.00061	ND
1,2-Dichlorobenzene	0.698	mg/kg	0.0016	ND
1,2-Dichloroethane	0.698	mg/kg	0.0016	ND
1,2-Dichloropropane	0.698	mg/kg	0.0016	ND
1,3-Dichlorobenzene	0.698	mg/kg	0.0016	ND
1,4-Dichlorobenzene	0.698	mg/kg	0.0016	ND
1,4-Dioxane	0.698	mg/kg	0.078	ND
2-Butanone	0.698	mg/kg	0.0016	ND
2-Hexanone	0.698	mg/kg	0.0016	ND
4-Methyl-2-pentanone	0.698	mg/kg	0.0016	ND
Acetone	0.698	mg/kg	0.0078	ND
Benzene	0.698	mg/kg	0.00078	ND
Bromochloromethane	0.698	mg/kg	0.0016	ND
Bromodichloromethane	0.698	mg/kg	0.0016	ND
Bromoform	0.698	mg/kg	0.0016	ND
Bromomethane	0.698	mg/kg	0.0016	ND
Carbon disulfide	0.698	mg/kg	0.0016	ND
Carbon tetrachloride	0.698	mg/kg	0.0016	ND
Chlorobenzene	0.698	mg/kg	0.0016	ND
Chloroethane	0.698	mg/kg	0.0016	ND
Chloroform	0.698	mg/kg	0.0016	ND
Chloromethane	0.698	mg/kg	0.0016	ND
cis-1,2-Dichloroethene	0.698	mg/kg	0.0016	ND
cis-1,3-Dichloropropene	0.698	mg/kg	0.0016	ND
Cyclohexane	0.698	mg/kg	0.0016	ND
Dibromochloromethane	0.698	mg/kg	0.0016	ND
Dichlorodifluoromethane	0.698	mg/kg	0.0016	ND
Ethylbenzene	0.698	mg/kg	0.00078	ND
Isopropylbenzene	0.698	mg/kg	0.00078	ND
m&p-Xylenes	0.698	mg/kg	0.00078	ND
Methyl Acetate	0.698	mg/kg	0.0016	ND
Methylcyclohexane	0.698	mg/kg	0.0016	ND
Methylene chloride	0.698	mg/kg	0.0016	ND
Methyl-t-butyl ether	0.698	mg/kg	0.00078	ND
o-Xylene	0.698	mg/kg	0.00078	ND
Styrene	0.698	mg/kg	0.0016	ND
Tetrachloroethene	0.698	mg/kg	0.0016	ND
Toluene	0.698	mg/kg	0.00078	ND
trans-1,2-Dichloroethene	0.698	mg/kg	0.0016	ND
trans-1,3-Dichloropropene	0.698	mg/kg	0.0016	ND
Trichloroethene	0.698	mg/kg	0.0016	ND
Trichlorofluoromethane	0.698	mg/kg	0.0016	ND
Vinyl chloride	0.698	mg/kg	0.0016	ND
Xylenes (Total)	0.698	mg/kg	0.00078	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.99	30	68	122	90	
Dibromofluoromethane	30.52	30	63	140	102	
Bromofluorobenzene	31.21	30	64	129	104	
1,2-Dichloroethane-d4	29.44	30	63	143	98	

**Volatile Organics + 15 (8260) Library Searches**

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	0.698	mg/kg	NA	ND
TotalVolatileTic	0.698	mg/kg	NA	ND

Sample ID: B-13B  
 Lab#: AD15423-008  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		90

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	mg/kg	0.037	ND		
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.037	ND		
1-Methylnaphthalene	1	mg/kg	0.037	ND		
2,4-Dinitrotoluene	1	mg/kg	0.037	ND		
2,6-Dinitrotoluene	1	mg/kg	0.037	ND		
2-Chloronaphthalene	1	mg/kg	0.037	ND		
2-Methylnaphthalene	1	mg/kg	0.037	ND		
2-Nitroaniline	1	mg/kg	0.037	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.037	ND		
3-Nitroaniline	1	mg/kg	0.037	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.037	ND		
4-Chloroaniline	1	mg/kg	0.0093	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.037	ND		
4-Nitroaniline	1	mg/kg	0.037	ND		
Acenaphthene	1	mg/kg	0.037	ND		
Acenaphthylene	1	mg/kg	0.037	ND		
Acetophenone	1	mg/kg	0.037	ND		
Anthracene	1	mg/kg	0.037	ND		
Atrazine	1	mg/kg	0.037	ND		
Benzaldehyde	1	mg/kg	0.037	ND		
Benzo[a]anthracene	1	mg/kg	0.037	ND		
Benzo[a]pyrene	1	mg/kg	0.037	ND		
Benzo[b]fluoranthene	1	mg/kg	0.037	ND		
Benzo[g,h,i]perylene	1	mg/kg	0.037	ND		
Benzo[k]fluoranthene	1	mg/kg	0.037	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.037	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0093	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.037	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.037	ND		
Butylbenzylphthalate	1	mg/kg	0.037	ND		
Caprolactam	1	mg/kg	0.037	ND		
Carbazole	1	mg/kg	0.037	ND		
Chrysene	1	mg/kg	0.037	ND		
Dibenzo[a,h]anthracene	1	mg/kg	0.037	ND		
Dibenzofuran	1	mg/kg	0.0093	ND		
Diethylphthalate	1	mg/kg	0.037	ND		
Dimethylphthalate	1	mg/kg	0.037	ND		
Di-n-butylphthalate	1	mg/kg	0.0093	ND		
Di-n-octylphthalate	1	mg/kg	0.037	ND		
Fluoranthene	1	mg/kg	0.037	ND		
Fluorene	1	mg/kg	0.037	ND		
Hexachlorobenzene	1	mg/kg	0.037	ND		
Hexachlorobutadiene	1	mg/kg	0.037	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.037	ND		
Hexachloroethane	1	mg/kg	0.037	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.037	ND		
Isophorone	1	mg/kg	0.037	ND		
Naphthalene	1	mg/kg	0.0093	ND		
Nitrobenzene	1	mg/kg	0.037	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0093	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.037	ND		
Phenanthrene	1	mg/kg	0.037	ND		
Pyrene	1	mg/kg	0.037	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	52.01	50	58	148	104	
Nitrobenzene-d5	38.53	50	52	129	77	
2-Fluorobiphenyl	36.71	50	58	125	73	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
9-Octadecenamide, (Z)-	1	mg/kg	12.09	0.75J

Sample ID: B-13B  
 Lab#: AD15423-008  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

Cyclohexane	1	mg/kg	2.24	0.096J
2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.31	5.2JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.24	0.11JB
Benzene, 1,2,4-trimethyl-	1	mg/kg	5.67	0.14JB
Ethane, 1-ethoxy-1-methoxy-	1	mg/kg	5.75	0.22JB
TotalSemiVolatileTic	1	mg/kg	NA	6.5J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.093	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	67	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	63.49	100	40	140	63	
1-Chlorooctadecane	62.16	100	40	140	62	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	143.52	100	37	141	144	S8
TCMX-Surrogate	124.99	100	37	141	125	
DCB-Surrogate	144.09	100	34	146	144	
DCB-Surrogate	116.99	100	34	146	117	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	220	3700
Barium	1	mg/kg	11	ND
Calcium	1	mg/kg	1100	ND
Chromium	1	mg/kg	5.6	9.0
Cobalt	1	mg/kg	2.8	ND
Copper	1	mg/kg	5.6	ND
Iron	1	mg/kg	220	6000
Lead	1	mg/kg	5.6	ND
Magnesium	1	mg/kg	560	950
Manganese	1	mg/kg	11	29
Nickel	1	mg/kg	5.6	ND
Potassium	1	mg/kg	560	ND
Sodium	1	mg/kg	280	ND
Vanadium	1	mg/kg	11	ND
Zinc	1	mg/kg	11	16

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.89	ND
Arsenic	1	mg/kg	0.22	1.4
Beryllium	1	mg/kg	0.22	ND
Cadmium	1	mg/kg	0.44	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.814	mg/kg	0.0018	ND

Sample ID: B-13B

Lab#: AD15423-008

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

1,1,2,2-Tetrachloroethane	0.814	mg/kg	0.0018	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.814	mg/kg	0.0018	ND
1,1,2-Trichloroethane	0.814	mg/kg	0.0018	ND
1,1-Dichloroethane	0.814	mg/kg	0.0018	ND
1,1-Dichloroethene	0.814	mg/kg	0.0018	ND
1,2,3-Trichlorobenzene	0.814	mg/kg	0.0018	ND
1,2,4-Trichlorobenzene	0.814	mg/kg	0.0018	ND
1,2,4-Trimethylbenzene	0.814	mg/kg	0.00090	ND
1,2-Dibromo-3-chloropropane	0.814	mg/kg	0.0018	ND
1,2-Dibromoethane	0.814	mg/kg	0.00071	ND
1,2-Dichlorobenzene	0.814	mg/kg	0.0018	ND
1,2-Dichloroethane	0.814	mg/kg	0.0018	ND
1,2-Dichloropropane	0.814	mg/kg	0.0018	ND
1,3-Dichlorobenzene	0.814	mg/kg	0.0018	ND
1,4-Dichlorobenzene	0.814	mg/kg	0.0018	ND
1,4-Dioxane	0.814	mg/kg	0.090	ND
2-Butanone	0.814	mg/kg	0.0018	ND
2-Hexanone	0.814	mg/kg	0.0018	ND
4-Methyl-2-pentanone	0.814	mg/kg	0.0018	ND
Acetone	0.814	mg/kg	0.0090	ND
Benzene	0.814	mg/kg	0.00090	ND
Bromochloromethane	0.814	mg/kg	0.0018	ND
Bromodichloromethane	0.814	mg/kg	0.0018	ND
Bromoform	0.814	mg/kg	0.0018	ND
Bromomethane	0.814	mg/kg	0.0018	ND
Carbon disulfide	0.814	mg/kg	0.0018	ND
Carbon tetrachloride	0.814	mg/kg	0.0018	ND
Chlorobenzene	0.814	mg/kg	0.0018	ND
Chloroethane	0.814	mg/kg	0.0018	ND
Chloroform	0.814	mg/kg	0.0018	ND
Chloromethane	0.814	mg/kg	0.0018	ND
cis-1,2-Dichloroethene	0.814	mg/kg	0.0018	ND
cis-1,3-Dichloropropene	0.814	mg/kg	0.0018	ND
Cyclohexane	0.814	mg/kg	0.0018	ND
Dibromochloromethane	0.814	mg/kg	0.0018	ND
Dichlorodifluoromethane	0.814	mg/kg	0.0018	ND
Ethylbenzene	0.814	mg/kg	0.00090	ND
Isopropylbenzene	0.814	mg/kg	0.00090	ND
m&p-Xylenes	0.814	mg/kg	0.00090	ND
Methyl Acetate	0.814	mg/kg	0.0018	ND
Methylcyclohexane	0.814	mg/kg	0.0018	ND
Methylene chloride	0.814	mg/kg	0.0018	ND
Methyl-t-butyl ether	0.814	mg/kg	0.00090	ND
o-Xylene	0.814	mg/kg	0.00090	ND
Styrene	0.814	mg/kg	0.0018	ND
Tetrachloroethene	0.814	mg/kg	0.0018	ND
Toluene	0.814	mg/kg	0.00090	ND
trans-1,2-Dichloroethene	0.814	mg/kg	0.0018	ND
trans-1,3-Dichloropropene	0.814	mg/kg	0.0018	ND
Trichloroethene	0.814	mg/kg	0.0018	ND
Trichlorofluoromethane	0.814	mg/kg	0.0018	ND
Vinyl chloride	0.814	mg/kg	0.0018	ND
Xylenes (Total)	0.814	mg/kg	0.00090	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.32	30	68	122	88	
Dibromofluoromethane	30.77	30	63	140	103	
Bromofluorobenzene	30.26	30	64	129	101	
1,2-Dichloroethane-d4	29.13	30	63	143	97	

## Volatile Organics + 15 (8260) Library Searches

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	0.814	mg/kg	NA	ND
TotalVolatileTic	0.814	mg/kg	NA	ND

Sample ID: B-14A  
 Lab#: AD15423-009  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		82

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	mg/kg	0.041	ND		
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.041	ND		
1-Methylnaphthalene	1	mg/kg	0.041	ND		
2,4-Dinitrotoluene	1	mg/kg	0.041	ND		
2,6-Dinitrotoluene	1	mg/kg	0.041	ND		
2-Chloronaphthalene	1	mg/kg	0.041	ND		
2-Methylnaphthalene	1	mg/kg	0.041	ND		
2-Nitroaniline	1	mg/kg	0.041	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.041	ND		
3-Nitroaniline	1	mg/kg	0.041	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.041	ND		
4-Chloroaniline	1	mg/kg	0.010	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.041	ND		
4-Nitroaniline	1	mg/kg	0.041	ND		
Acenaphthene	1	mg/kg	0.041	ND		
Acenaphthylene	1	mg/kg	0.041	ND		
Acetophenone	1	mg/kg	0.041	ND		
Anthracene	1	mg/kg	0.041	ND		
Atrazine	1	mg/kg	0.041	ND		
Benzaldehyde	1	mg/kg	0.041	ND		
Benzo[a]anthracene	1	mg/kg	0.041	ND		
Benzo[a]pyrene	1	mg/kg	0.041	ND		
Benzo[b]fluoranthene	1	mg/kg	0.041	ND		
Benzo[g,h,i]perylene	1	mg/kg	0.041	ND		
Benzo[k]fluoranthene	1	mg/kg	0.041	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.041	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.010	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.041	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.041	ND		
Butylbenzylphthalate	1	mg/kg	0.041	ND		
Caprolactam	1	mg/kg	0.041	ND		
Carbazole	1	mg/kg	0.041	ND		
Chrysene	1	mg/kg	0.041	ND		
Dibenzo[a,h]anthracene	1	mg/kg	0.041	ND		
Dibenzofuran	1	mg/kg	0.010	ND		
Diethylphthalate	1	mg/kg	0.041	ND		
Dimethylphthalate	1	mg/kg	0.041	ND		
Di-n-butylphthalate	1	mg/kg	0.010	ND		
Di-n-octylphthalate	1	mg/kg	0.041	ND		
Fluoranthene	1	mg/kg	0.041	ND		
Fluorene	1	mg/kg	0.041	ND		
Hexachlorobenzene	1	mg/kg	0.041	ND		
Hexachlorobutadiene	1	mg/kg	0.041	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.041	ND		
Hexachloroethane	1	mg/kg	0.041	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.041	ND		
Isophorone	1	mg/kg	0.041	ND		
Naphthalene	1	mg/kg	0.010	ND		
Nitrobenzene	1	mg/kg	0.041	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.010	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.041	ND		
Phenanthrene	1	mg/kg	0.041	ND		
Pyrene	1	mg/kg	0.041	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	50.76	50	58	148	102	
Nitrobenzene-d5	34.43	50	52	129	69	
2-Fluorobiphenyl	39.46	50	58	125	79	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
9-Octadecenamide, (Z)-	1	mg/kg	12.18	0.19J

Sample ID: B-14A  
 Lab#: AD15423-009  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

1,2-Propanediol	1	mg/kg	3.07	0.13J
unknown	1	mg/kg	4.07	0.14J
2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.35	7.4JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.28	0.15JB
Benzene, 1-ethyl-4-methyl-	1	mg/kg	5.48	0.096J
Hexanoic acid	1	mg/kg	5.51	0.12J
Benzene, 1,2,3-trimethyl-	1	mg/kg	5.72	0.14J
Ethanol, 2-ethoxy-	1	mg/kg	5.8	0.25J
TotalSemiVolatileTic	1	mg/kg	NA	8.6J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	73	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	79.46	100	40	140	79	
1-Chlorooctadecane	77.67	100	40	140	78	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.030	ND		
Aroclor-1016	1	mg/kg	0.030	ND		
Aroclor-1221	1	mg/kg	0.030	ND		
Aroclor-1232	1	mg/kg	0.030	ND		
Aroclor-1242	1	mg/kg	0.030	ND		
Aroclor-1248	1	mg/kg	0.030	ND		
Aroclor-1254	1	mg/kg	0.030	ND		
Aroclor-1260	1	mg/kg	0.030	ND		
Aroclor-1262	1	mg/kg	0.030	ND		
Aroclor-1268	1	mg/kg	0.030	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	187.66	100	37	141	188	S8
TCMX-Surrogate	164.90	100	37	141	165	S8
DCB-Surrogate	178.62	100	34	146	179	S8
DCB-Surrogate	146.46	100	34	146	146	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	240	3000
Barium	1	mg/kg	12	22
Calcium	1	mg/kg	1200	7400
Chromium	1	mg/kg	6.1	7.7
Cobalt	1	mg/kg	3.0	ND
Copper	1	mg/kg	6.1	ND
Iron	1	mg/kg	240	7100
Lead	1	mg/kg	6.1	23
Magnesium	1	mg/kg	610	1200
Manganese	1	mg/kg	12	97
Nickel	1	mg/kg	6.1	ND
Potassium	1	mg/kg	610	ND
Sodium	1	mg/kg	300	ND
Vanadium	1	mg/kg	12	ND
Zinc	1	mg/kg	12	26

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.98	ND
Arsenic	1	mg/kg	0.24	3.6
Beryllium	1	mg/kg	0.24	0.25
Cadmium	1	mg/kg	0.49	ND
Selenium	1	mg/kg	2.4	ND
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.49	ND



Sample ID: B-14A  
 Lab#: AD15423-009  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.954	mg/kg	0.0023	ND		
1,1,2,2-Tetrachloroethane	0.954	mg/kg	0.0023	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.954	mg/kg	0.0023	ND		
1,1,2-Trichloroethane	0.954	mg/kg	0.0023	ND		
1,1-Dichloroethane	0.954	mg/kg	0.0023	ND		
1,1-Dichloroethene	0.954	mg/kg	0.0023	ND		
1,2,3-Trichlorobenzene	0.954	mg/kg	0.0023	ND		
1,2,4-Trichlorobenzene	0.954	mg/kg	0.0023	ND		
1,2,4-Trimethylbenzene	0.954	mg/kg	0.0012	ND		
1,2-Dibromo-3-chloropropane	0.954	mg/kg	0.0023	ND		
1,2-Dibromoethane	0.954	mg/kg	0.00091	ND		
1,2-Dichlorobenzene	0.954	mg/kg	0.0023	ND		
1,2-Dichloroethane	0.954	mg/kg	0.0023	ND		
1,2-Dichloropropane	0.954	mg/kg	0.0023	ND		
1,3-Dichlorobenzene	0.954	mg/kg	0.0023	ND		
1,4-Dichlorobenzene	0.954	mg/kg	0.0023	ND		
1,4-Dioxane	0.954	mg/kg	0.12	ND		
2-Butanone	0.954	mg/kg	0.0023	ND		
2-Hexanone	0.954	mg/kg	0.0023	ND		
4-Methyl-2-pentanone	0.954	mg/kg	0.0023	ND		
Acetone	0.954	mg/kg	0.012	ND		
Benzene	0.954	mg/kg	0.0012	ND		
Bromochloromethane	0.954	mg/kg	0.0023	ND		
Bromodichloromethane	0.954	mg/kg	0.0023	ND		
Bromoform	0.954	mg/kg	0.0023	ND		
Bromomethane	0.954	mg/kg	0.0023	ND		
Carbon disulfide	0.954	mg/kg	0.0023	ND		
Carbon tetrachloride	0.954	mg/kg	0.0023	ND		
Chlorobenzene	0.954	mg/kg	0.0023	ND		
Chloroethane	0.954	mg/kg	0.0023	ND		
Chloroform	0.954	mg/kg	0.0023	ND		
Chloromethane	0.954	mg/kg	0.0023	ND		
cis-1,2-Dichloroethene	0.954	mg/kg	0.0023	ND		
cis-1,3-Dichloropropene	0.954	mg/kg	0.0023	ND		
Cyclohexane	0.954	mg/kg	0.0023	ND		
Dibromochloromethane	0.954	mg/kg	0.0023	ND		
Dichlorodifluoromethane	0.954	mg/kg	0.0023	ND		
Ethylbenzene	0.954	mg/kg	0.0012	ND		
Isopropylbenzene	0.954	mg/kg	0.0012	ND		
m&p-Xylenes	0.954	mg/kg	0.0012	ND		
Methyl Acetate	0.954	mg/kg	0.0023	ND		
Methylcyclohexane	0.954	mg/kg	0.0023	ND		
Methylene chloride	0.954	mg/kg	0.0023	ND		
Methyl-t-butyl ether	0.954	mg/kg	0.0012	ND		
o-Xylene	0.954	mg/kg	0.0012	ND		
Styrene	0.954	mg/kg	0.0023	ND		
Tetrachloroethene	0.954	mg/kg	0.0023	ND		
Toluene	0.954	mg/kg	0.0012	ND		
trans-1,2-Dichloroethene	0.954	mg/kg	0.0023	ND		
trans-1,3-Dichloropropene	0.954	mg/kg	0.0023	ND		
Trichloroethene	0.954	mg/kg	0.0023	ND		
Trichlorofluoromethane	0.954	mg/kg	0.0023	ND		
Vinyl chloride	0.954	mg/kg	0.0023	ND		
Xylenes (Total)	0.954	mg/kg	0.0012	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.79	30	68	122	89	
Dibromofluoromethane	30.85	30	63	140	103	
Bromofluorobenzene	30.42	30	64	129	101	
1,2-Dichloroethane-d4	28.75	30	63	143	96	

**Volatile Organics + 15 (8260) Library Searches**

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	0.954	mg/kg	NA	ND
TotalVolatileTic	0.954	mg/kg	NA	ND

Sample ID: B-14B  
 Lab#: AD15423-010  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		88

Base Neutrals + 15 (8270)

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	mg/kg	0.038	ND		
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.038	ND		
1-Methylnaphthalene	1	mg/kg	0.038	ND		
2,4-Dinitrotoluene	1	mg/kg	0.038	ND		
2,6-Dinitrotoluene	1	mg/kg	0.038	ND		
2-Chloronaphthalene	1	mg/kg	0.038	ND		
2-Methylnaphthalene	1	mg/kg	0.038	ND		
2-Nitroaniline	1	mg/kg	0.038	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.038	ND		
3-Nitroaniline	1	mg/kg	0.038	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.038	ND		
4-Chloroaniline	1	mg/kg	0.0095	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.038	ND		
4-Nitroaniline	1	mg/kg	0.038	ND		
Acenaphthene	1	mg/kg	0.038	ND		
Acenaphthylene	1	mg/kg	0.038	ND		
Acetophenone	1	mg/kg	0.038	ND		
Anthracene	1	mg/kg	0.038	ND		
Atrazine	1	mg/kg	0.038	ND		
Benzaldehyde	1	mg/kg	0.038	ND		
Benzo[a]anthracene	1	mg/kg	0.038	ND		
Benzo[a]pyrene	1	mg/kg	0.038	ND		
Benzo[b]fluoranthene	1	mg/kg	0.038	ND		
Benzo[g,h,i]perylene	1	mg/kg	0.038	ND		
Benzo[k]fluoranthene	1	mg/kg	0.038	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.038	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0095	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.038	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.038	ND		
Butylbenzylphthalate	1	mg/kg	0.038	ND		
Caprolactam	1	mg/kg	0.038	ND		
Carbazole	1	mg/kg	0.038	ND		
Chrysene	1	mg/kg	0.038	ND		
Dibenzo[a,h]anthracene	1	mg/kg	0.038	ND		
Dibenzofuran	1	mg/kg	0.0095	ND		
Diethylphthalate	1	mg/kg	0.038	ND		
Dimethylphthalate	1	mg/kg	0.038	ND		
Di-n-butylphthalate	1	mg/kg	0.0095	ND		
Di-n-octylphthalate	1	mg/kg	0.038	ND		
Fluoranthene	1	mg/kg	0.038	ND		
Fluorene	1	mg/kg	0.038	ND		
Hexachlorobenzene	1	mg/kg	0.038	ND		
Hexachlorobutadiene	1	mg/kg	0.038	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.038	ND		
Hexachloroethane	1	mg/kg	0.038	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.038	ND		
Isophorone	1	mg/kg	0.038	ND		
Naphthalene	1	mg/kg	0.0095	ND		
Nitrobenzene	1	mg/kg	0.038	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0095	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.038	ND		
Phenanthrene	1	mg/kg	0.038	ND		
Pyrene	1	mg/kg	0.038	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	48.59	50	58	148	97	
Nitrobenzene-d5	30.01	50	52	129	60	
2-Fluorobiphenyl	32.18	50	58	125	64	

Base Neutrals + 15 (8270) Library Searches

Analyte	DF	Units	RT	Result
9-Octadecenamide, (Z)-	1	mg/kg	12.18	0.94J

Sample ID: B-14B  
 Lab#: AD15423-010  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.35	6.2JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.28	0.14JB
Benzene, 1,3,5-trimethyl-	1	mg/kg	5.72	0.14JB
unknown	1	mg/kg	5.8	0.21J
TotalSemiVolatileTic	1	mg/kg	NA	7.6J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.095	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	68	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	101.13	100	40	140	101	
1-Chlorooctadecane	97.17	100	40	140	97	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	149.45	100	37	141	149	S8
TCMX-Surrogate	134.82	100	37	141	135	
DCB-Surrogate	150.57	100	34	146	151	S8
DCB-Surrogate	127.44	100	34	146	127	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	230	3900
Barium	1	mg/kg	11	15
Calcium	1	mg/kg	1100	ND
Chromium	1	mg/kg	5.7	9.8
Cobalt	1	mg/kg	2.8	4.7
Copper	1	mg/kg	5.7	5.9
Iron	1	mg/kg	230	13000
Lead	1	mg/kg	5.7	9.2
Magnesium	1	mg/kg	570	1400
Manganese	1	mg/kg	11	190
Nickel	1	mg/kg	5.7	8.0
Potassium	1	mg/kg	570	ND
Sodium	1	mg/kg	280	ND
Vanadium	1	mg/kg	11	13
Zinc	1	mg/kg	11	27

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.91	ND
Arsenic	1	mg/kg	0.23	2.5
Beryllium	1	mg/kg	0.23	0.25
Cadmium	1	mg/kg	0.45	ND
Selenium	1	mg/kg	2.3	ND
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.45	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.853	mg/kg	0.0019	ND
1,1,2,2-Tetrachloroethane	0.853	mg/kg	0.0019	ND

Sample ID: B-14B

Lab#: AD15423-010

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

1,1,2-Trichloro-1,2,2-trifluoroethane	0.853	mg/kg	0.0019	ND
1,1,2-Trichloroethane	0.853	mg/kg	0.0019	ND
1,1-Dichloroethane	0.853	mg/kg	0.0019	ND
1,1-Dichloroethene	0.853	mg/kg	0.0019	ND
1,2,3-Trichlorobenzene	0.853	mg/kg	0.0019	ND
1,2,4-Trichlorobenzene	0.853	mg/kg	0.0019	ND
1,2,4-Trimethylbenzene	0.853	mg/kg	0.00097	ND
1,2-Dibromo-3-chloropropane	0.853	mg/kg	0.0019	ND
1,2-Dibromoethane	0.853	mg/kg	0.00076	ND
1,2-Dichlorobenzene	0.853	mg/kg	0.0019	ND
1,2-Dichloroethane	0.853	mg/kg	0.0019	ND
1,2-Dichloropropane	0.853	mg/kg	0.0019	ND
1,3-Dichlorobenzene	0.853	mg/kg	0.0019	ND
1,4-Dichlorobenzene	0.853	mg/kg	0.0019	ND
1,4-Dioxane	0.853	mg/kg	0.097	ND
2-Butanone	0.853	mg/kg	0.0019	ND
2-Hexanone	0.853	mg/kg	0.0019	ND
4-Methyl-2-pentanone	0.853	mg/kg	0.0019	ND
Acetone	0.853	mg/kg	0.0097	ND
Benzene	0.853	mg/kg	0.00097	ND
Bromochloromethane	0.853	mg/kg	0.0019	ND
Bromodichloromethane	0.853	mg/kg	0.0019	ND
Bromoform	0.853	mg/kg	0.0019	ND
Bromomethane	0.853	mg/kg	0.0019	ND
Carbon disulfide	0.853	mg/kg	0.0019	ND
Carbon tetrachloride	0.853	mg/kg	0.0019	ND
Chlorobenzene	0.853	mg/kg	0.0019	ND
Chloroethane	0.853	mg/kg	0.0019	ND
Chloroform	0.853	mg/kg	0.0019	ND
Chloromethane	0.853	mg/kg	0.0019	ND
cis-1,2-Dichloroethene	0.853	mg/kg	0.0019	ND
cis-1,3-Dichloropropene	0.853	mg/kg	0.0019	ND
Cyclohexane	0.853	mg/kg	0.0019	ND
Dibromochloromethane	0.853	mg/kg	0.0019	ND
Dichlorodifluoromethane	0.853	mg/kg	0.0019	ND
Ethylbenzene	0.853	mg/kg	0.00097	ND
Isopropylbenzene	0.853	mg/kg	0.00097	ND
m&p-Xylenes	0.853	mg/kg	0.00097	ND
Methyl Acetate	0.853	mg/kg	0.0019	ND
Methylcyclohexane	0.853	mg/kg	0.0019	ND
Methylene chloride	0.853	mg/kg	0.0019	ND
Methyl-t-butyl ether	0.853	mg/kg	0.00097	ND
o-Xylene	0.853	mg/kg	0.00097	ND
Styrene	0.853	mg/kg	0.0019	ND
Tetrachloroethene	0.853	mg/kg	0.0019	ND
Toluene	0.853	mg/kg	0.00097	ND
trans-1,2-Dichloroethene	0.853	mg/kg	0.0019	ND
trans-1,3-Dichloropropene	0.853	mg/kg	0.0019	ND
Trichloroethene	0.853	mg/kg	0.0019	ND
Trichlorofluoromethane	0.853	mg/kg	0.0019	ND
Vinyl chloride	0.853	mg/kg	0.0019	ND
Xylenes (Total)	0.853	mg/kg	0.00097	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.49	30	68	122	88	
Dibromofluoromethane	30.45	30	63	140	101	
Bromofluorobenzene	29.33	30	64	129	98	
1,2-Dichloroethane-d4	29.28	30	63	143	98	

## Volatile Organics + 15 (8260) Library Searches

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	0.853	mg/kg	NA	ND
TotalVolatileTic	0.853	mg/kg	NA	ND

Sample ID: B-15A  
 Lab#: AD15423-011  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		92

Base Neutrals + 15 (8270)

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	mg/kg	0.036	ND		
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.036	ND		
1-Methylnaphthalene	1	mg/kg	0.036	ND		
2,4-Dinitrotoluene	1	mg/kg	0.036	ND		
2,6-Dinitrotoluene	1	mg/kg	0.036	ND		
2-Chloronaphthalene	1	mg/kg	0.036	ND		
2-Methylnaphthalene	1	mg/kg	0.036	ND		
2-Nitroaniline	1	mg/kg	0.036	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.036	ND		
3-Nitroaniline	1	mg/kg	0.036	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.036	ND		
4-Chloroaniline	1	mg/kg	0.0091	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.036	ND		
4-Nitroaniline	1	mg/kg	0.036	ND		
Acenaphthene	1	mg/kg	0.036	ND		
Acenaphthylene	1	mg/kg	0.036	ND		
Acetophenone	1	mg/kg	0.036	ND		
Anthracene	1	mg/kg	0.036	ND		
Atrazine	1	mg/kg	0.036	ND		
Benzaldehyde	1	mg/kg	0.036	ND		
<b>Benzo[a]anthracene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.036</b>	<b>0.037</b>		
<b>Benzo[a]pyrene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.036</b>	<b>0.040</b>		
<b>Benzo[b]fluoranthene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.036</b>	<b>0.066</b>		
Benzo[g,h,i]perylene	1	mg/kg	0.036	ND		
Benzo[k]fluoranthene	1	mg/kg	0.036	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.036	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0091	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.036	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.036	ND		
Butylbenzylphthalate	1	mg/kg	0.036	ND		
Caprolactam	1	mg/kg	0.036	ND		
Carbazole	1	mg/kg	0.036	ND		
<b>Chrysene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.036</b>	<b>0.045</b>		
Dibenzo[a,h]anthracene	1	mg/kg	0.036	ND		
Dibenzofuran	1	mg/kg	0.0091	ND		
Diethylphthalate	1	mg/kg	0.036	ND		
Dimethylphthalate	1	mg/kg	0.036	ND		
Di-n-butylphthalate	1	mg/kg	0.0091	ND		
Di-n-octylphthalate	1	mg/kg	0.036	ND		
<b>Fluoranthene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.036</b>	<b>0.089</b>		
Fluorene	1	mg/kg	0.036	ND		
Hexachlorobenzene	1	mg/kg	0.036	ND		
Hexachlorobutadiene	1	mg/kg	0.036	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.036	ND		
Hexachloroethane	1	mg/kg	0.036	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.036	ND		
Isophorone	1	mg/kg	0.036	ND		
Naphthalene	1	mg/kg	0.0091	ND		
Nitrobenzene	1	mg/kg	0.036	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0091	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.036	ND		
Phenanthrene	1	mg/kg	0.036	ND		
<b>Pyrene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.036</b>	<b>0.070</b>		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	44.31	50	58	148	89	
Nitrobenzene-d5	33.19	50	52	129	66	
2-Fluorobiphenyl	29.99	50	58	125	60	

Base Neutrals + 15 (8270) Library Searches

Analyte	DF	Units	RT	Result
9-Octadecenamide, (Z)-	1	mg/kg	12.18	0.28J

Sample ID: B-15A  
 Lab#: AD15423-011  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.35	5.8JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.28	0.11JB
Benzene, 1-ethyl-2-methyl-	1	mg/kg	5.48	0.089JB
Benzene, 1,2,4-trimethyl-	1	mg/kg	5.73	0.16J
Ethane, 1-ethoxy-1-methoxy-	1	mg/kg	5.81	0.22JB
TotalSemiVolatileTic	1	mg/kg	NA	6.7J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.091	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	65	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	100.55	100	40	140	101	
1-Chlorooctadecane	97.39	100	40	140	97	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	148.49	100	37	141	148	S8
TCMX-Surrogate	133.79	100	37	141	134	
DCB-Surrogate	147.06	100	34	146	147	S8
DCB-Surrogate	126.42	100	34	146	126	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	220	2700
Barium	1	mg/kg	11	13
Calcium	1	mg/kg	1100	ND
Chromium	1	mg/kg	5.4	12
Cobalt	1	mg/kg	2.7	ND
Copper	1	mg/kg	5.4	ND
Iron	1	mg/kg	220	9200
Lead	1	mg/kg	5.4	10
Magnesium	1	mg/kg	540	830
Manganese	1	mg/kg	11	56
Nickel	1	mg/kg	5.4	ND
Potassium	1	mg/kg	540	630
Sodium	1	mg/kg	270	ND
Vanadium	1	mg/kg	11	ND
Zinc	1	mg/kg	11	23

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.87	ND
Arsenic	1	mg/kg	0.22	3.6
Beryllium	1	mg/kg	0.22	0.24
Cadmium	1	mg/kg	0.43	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.43	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	mg/kg	0.0022	ND

Sample ID: B-15A  
 Lab#: AD15423-011  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

1,1,2,2-Tetrachloroethane	1	mg/kg	0.0022	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	mg/kg	0.0022	ND
1,1,2-Trichloroethane	1	mg/kg	0.0022	ND
1,1-Dichloroethane	1	mg/kg	0.0022	ND
1,1-Dichloroethene	1	mg/kg	0.0022	ND
1,2,3-Trichlorobenzene	1	mg/kg	0.0022	ND
1,2,4-Trichlorobenzene	1	mg/kg	0.0022	ND
1,2,4-Trimethylbenzene	1	mg/kg	0.0011	ND
1,2-Dibromo-3-chloropropane	1	mg/kg	0.0022	ND
1,2-Dibromoethane	1	mg/kg	0.00085	ND
1,2-Dichlorobenzene	1	mg/kg	0.0022	ND
1,2-Dichloroethane	1	mg/kg	0.0022	ND
1,2-Dichloropropane	1	mg/kg	0.0022	ND
1,3-Dichlorobenzene	1	mg/kg	0.0022	ND
1,4-Dichlorobenzene	1	mg/kg	0.0022	ND
1,4-Dioxane	1	mg/kg	0.11	ND
2-Butanone	1	mg/kg	0.0022	ND
2-Hexanone	1	mg/kg	0.0022	ND
4-Methyl-2-pentanone	1	mg/kg	0.0022	ND
Acetone	1	mg/kg	0.011	ND
Benzene	1	mg/kg	0.0011	ND
Bromochloromethane	1	mg/kg	0.0022	ND
Bromodichloromethane	1	mg/kg	0.0022	ND
Bromoform	1	mg/kg	0.0022	ND
Bromomethane	1	mg/kg	0.0022	ND
Carbon disulfide	1	mg/kg	0.0022	ND
Carbon tetrachloride	1	mg/kg	0.0022	ND
Chlorobenzene	1	mg/kg	0.0022	ND
Chloroethane	1	mg/kg	0.0022	ND
Chloroform	1	mg/kg	0.0022	ND
Chloromethane	1	mg/kg	0.0022	ND
cis-1,2-Dichloroethene	1	mg/kg	0.0022	ND
cis-1,3-Dichloropropene	1	mg/kg	0.0022	ND
Cyclohexane	1	mg/kg	0.0022	ND
Dibromochloromethane	1	mg/kg	0.0022	ND
Dichlorodifluoromethane	1	mg/kg	0.0022	ND
Ethylbenzene	1	mg/kg	0.0011	ND
Isopropylbenzene	1	mg/kg	0.0011	ND
m&p-Xylenes	1	mg/kg	0.0011	ND
Methyl Acetate	1	mg/kg	0.0022	ND
Methylcyclohexane	1	mg/kg	0.0022	ND
Methylene chloride	1	mg/kg	0.0022	ND
Methyl-t-butyl ether	1	mg/kg	0.0011	ND
o-Xylene	1	mg/kg	0.0011	ND
Styrene	1	mg/kg	0.0022	ND
Tetrachloroethene	1	mg/kg	0.0022	ND
Toluene	1	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	1	mg/kg	0.0022	ND
trans-1,3-Dichloropropene	1	mg/kg	0.0022	ND
Trichloroethene	1	mg/kg	0.0022	ND
Trichlorofluoromethane	1	mg/kg	0.0022	ND
Vinyl chloride	1	mg/kg	0.0022	ND
Xylenes (Total)	1	mg/kg	0.0011	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.48	30	68	122	88	
Dibromofluoromethane	30.70	30	63	140	102	
Bromofluorobenzene	30.08	30	64	129	100	
1,2-Dichloroethane-d4	29.48	30	63	143	98	

**Volatile Organics + 15 (8260) Library Searches**

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	1	mg/kg	NA	ND
TotalVolatileTic	1	mg/kg	NA	ND

Sample ID: B-15B  
 Lab#: AD15423-012  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

**% Solids SM2540G**

Analyte	DF	Units	RL	Result
% Solids	1	percent		90

**Base Neutrals + 15 (8270)**

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	mg/kg	0.037	ND		
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.037	ND		
1-Methylnaphthalene	1	mg/kg	0.037	ND		
2,4-Dinitrotoluene	1	mg/kg	0.037	ND		
2,6-Dinitrotoluene	1	mg/kg	0.037	ND		
2-Chloronaphthalene	1	mg/kg	0.037	ND		
2-Methylnaphthalene	1	mg/kg	0.037	ND		
2-Nitroaniline	1	mg/kg	0.037	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.037	ND		
3-Nitroaniline	1	mg/kg	0.037	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.037	ND		
4-Chloroaniline	1	mg/kg	0.0093	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.037	ND		
4-Nitroaniline	1	mg/kg	0.037	ND		
Acenaphthene	1	mg/kg	0.037	ND		
Acenaphthylene	1	mg/kg	0.037	ND		
Acetophenone	1	mg/kg	0.037	ND		
Anthracene	1	mg/kg	0.037	ND		
Atrazine	1	mg/kg	0.037	ND		
Benzaldehyde	1	mg/kg	0.037	ND		
Benzo[a]anthracene	1	mg/kg	0.037	ND		
<b>Benzo[a]pyrene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.037</b>	<b>0.038</b>		
<b>Benzo[b]fluoranthene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.037</b>	<b>0.061</b>		
Benzo[g,h,i]perylene	1	mg/kg	0.037	ND		
Benzo[k]fluoranthene	1	mg/kg	0.037	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.037	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0093	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.037	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.037	ND		
Butylbenzylphthalate	1	mg/kg	0.037	ND		
Caprolactam	1	mg/kg	0.037	ND		
Carbazole	1	mg/kg	0.037	ND		
<b>Chrysene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.037</b>	<b>0.041</b>		
Dibenzo[a,h]anthracene	1	mg/kg	0.037	ND		
Dibenzofuran	1	mg/kg	0.0093	ND		
Diethylphthalate	1	mg/kg	0.037	ND		
Dimethylphthalate	1	mg/kg	0.037	ND		
Di-n-butylphthalate	1	mg/kg	0.0093	ND		
Di-n-octylphthalate	1	mg/kg	0.037	ND		
<b>Fluoranthene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.037</b>	<b>0.053</b>		
Fluorene	1	mg/kg	0.037	ND		
Hexachlorobenzene	1	mg/kg	0.037	ND		
Hexachlorobutadiene	1	mg/kg	0.037	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.037	ND		
Hexachloroethane	1	mg/kg	0.037	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.037	ND		
Isophorone	1	mg/kg	0.037	ND		
Naphthalene	1	mg/kg	0.0093	ND		
Nitrobenzene	1	mg/kg	0.037	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0093	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.037	ND		
Phenanthrene	1	mg/kg	0.037	ND		
<b>Pyrene</b>	<b>1</b>	<b>mg/kg</b>	<b>0.037</b>	<b>0.059</b>		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	47.51	50	58	148	95	
Nitrobenzene-d5	35.53	50	52	129	71	
2-Fluorobiphenyl	37.50	50	58	125	75	

**Base Neutrals + 15 (8270) Library Searches**

Analyte	DF	Units	RT	Result
Pentanamide, 4-methyl-	1	mg/kg	12.13	0.59J



Sample ID: B-15B  
 Lab#: AD15423-012  
 Matrix: Soil/Encore

Collection Date: 1/28/2020  
 Receipt Date: 1/29/2020

2-Pentanone, 4-hydroxy-4-methyl-	1	mg/kg	4.31	4.2JAB
2-Propanol, 1-butoxy-	1	mg/kg	5.25	0.15JB
Benzene, 1-ethyl-2-methyl-	1	mg/kg	5.44	0.17JB
Benzene, 1,2,4-trimethyl-	1	mg/kg	5.51	0.077J
Benzene, 1,2,4-trimethyl-	1	mg/kg	5.7	0.21J
Ethane, 1-ethoxy-1-methoxy-	1	mg/kg	5.78	0.21JB
TotalSemiVolatileTic	1	mg/kg	NA	5.6J

**Mercury (Soil/Waste) 7471B**

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.093	ND

**NJ EPH Category 2**

Analyte	DF	Units	RL	Result		
C9-C40	1	mg/kg	67	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	91.78	100	40	140	92	
1-Chlorooctadecane	89.65	100	40	140	90	

**PCB 8082**

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	163.10	100	37	141	163	S8
TCMX-Surrogate	144.64	100	37	141	145	S8
DCB-Surrogate	164.54	100	34	146	165	S8
DCB-Surrogate	137.96	100	34	146	138	

**TAL Metals 6010D**

Analyte	DF	Units	RL	Result
Aluminum	1	mg/kg	220	5200
Barium	1	mg/kg	11	27
Calcium	1	mg/kg	1100	ND
Chromium	1	mg/kg	5.6	14
Cobalt	1	mg/kg	2.8	5.1
Copper	1	mg/kg	5.6	7.6
Iron	1	mg/kg	220	17000
Lead	1	mg/kg	5.6	17
Magnesium	1	mg/kg	560	1600
Manganese	1	mg/kg	11	130
Nickel	1	mg/kg	5.6	9.7
Potassium	1	mg/kg	560	650
Sodium	1	mg/kg	280	ND
Vanadium	1	mg/kg	11	18
Zinc	1	mg/kg	11	42

**TAL Metals 6020B**

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.89	ND
Arsenic	1	mg/kg	0.22	3.1
Beryllium	1	mg/kg	0.22	0.27
Cadmium	1	mg/kg	0.44	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

**Volatile Organics + 15 (8260)**

Analyte	DF	Units	RL	Result
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Sample ID: B-15B

Lab#: AD15423-012

Matrix: Soil/Encore

Collection Date: 1/28/2020

Receipt Date: 1/29/2020

1,1,1-Trichloroethane	0.622	mg/kg	0.0014	ND
1,1,2,2-Tetrachloroethane	0.622	mg/kg	0.0014	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.622	mg/kg	0.0014	ND
1,1,2-Trichloroethane	0.622	mg/kg	0.0014	ND
1,1-Dichloroethane	0.622	mg/kg	0.0014	ND
1,1-Dichloroethene	0.622	mg/kg	0.0014	ND
1,2,3-Trichlorobenzene	0.622	mg/kg	0.0014	ND
1,2,4-Trichlorobenzene	0.622	mg/kg	0.0014	ND
1,2,4-Trimethylbenzene	0.622	mg/kg	0.00069	ND
1,2-Dibromo-3-chloropropane	0.622	mg/kg	0.0014	ND
1,2-Dibromoethane	0.622	mg/kg	0.00054	ND
1,2-Dichlorobenzene	0.622	mg/kg	0.0014	ND
1,2-Dichloroethane	0.622	mg/kg	0.0014	ND
1,2-Dichloropropane	0.622	mg/kg	0.0014	ND
1,3-Dichlorobenzene	0.622	mg/kg	0.0014	ND
1,4-Dichlorobenzene	0.622	mg/kg	0.0014	ND
1,4-Dioxane	0.622	mg/kg	0.069	ND
2-Butanone	0.622	mg/kg	0.0014	ND
2-Hexanone	0.622	mg/kg	0.0014	ND
4-Methyl-2-pentanone	0.622	mg/kg	0.0014	ND
Acetone	0.622	mg/kg	0.0069	ND
Benzene	0.622	mg/kg	0.00069	ND
Bromochloromethane	0.622	mg/kg	0.0014	ND
Bromodichloromethane	0.622	mg/kg	0.0014	ND
Bromoform	0.622	mg/kg	0.0014	ND
Bromomethane	0.622	mg/kg	0.0014	ND
Carbon disulfide	0.622	mg/kg	0.0014	ND
Carbon tetrachloride	0.622	mg/kg	0.0014	ND
Chlorobenzene	0.622	mg/kg	0.0014	ND
Chloroethane	0.622	mg/kg	0.0014	ND
Chloroform	0.622	mg/kg	0.0014	ND
Chloromethane	0.622	mg/kg	0.0014	ND
cis-1,2-Dichloroethene	0.622	mg/kg	0.0014	ND
cis-1,3-Dichloropropene	0.622	mg/kg	0.0014	ND
Cyclohexane	0.622	mg/kg	0.0014	ND
Dibromochloromethane	0.622	mg/kg	0.0014	ND
Dichlorodifluoromethane	0.622	mg/kg	0.0014	ND
Ethylbenzene	0.622	mg/kg	0.00069	ND
Isopropylbenzene	0.622	mg/kg	0.00069	ND
m&p-Xylenes	0.622	mg/kg	0.00069	ND
Methyl Acetate	0.622	mg/kg	0.0014	ND
Methylcyclohexane	0.622	mg/kg	0.0014	ND
Methylene chloride	0.622	mg/kg	0.0014	ND
Methyl-t-butyl ether	0.622	mg/kg	0.00069	ND
o-Xylene	0.622	mg/kg	0.00069	ND
Styrene	0.622	mg/kg	0.0014	ND
Tetrachloroethene	0.622	mg/kg	0.0014	ND
Toluene	0.622	mg/kg	0.00069	ND
trans-1,2-Dichloroethene	0.622	mg/kg	0.0014	ND
trans-1,3-Dichloropropene	0.622	mg/kg	0.0014	ND
Trichloroethene	0.622	mg/kg	0.0014	ND
Trichlorofluoromethane	0.622	mg/kg	0.0014	ND
Vinyl chloride	0.622	mg/kg	0.0014	ND
Xylenes (Total)	0.622	mg/kg	0.00069	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.62	30	68	122	89	
Dibromofluoromethane	30.56	30	63	140	102	
Bromofluorobenzene	30.31	30	64	129	101	
1,2-Dichloroethane-d4	29.07	30	63	143	97	

## Volatile Organics + 15 (8260) Library Searches

Analyte	DF	Units	RT	Result
No Unknown Compounds Detected	0.622	mg/kg	NA	ND
TotalVolatileTic	0.622	mg/kg	NA	ND

**Hampton-Clarke, Inc. (WBE/DBE/SBE)**  
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004  
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458

Service Center: 137-D Galder Drive, Mount Laurel, New Jersey 08054  
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056

NEIACNJ #07071 | PA #58-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved



Project # (Lab Use Only) 0012911 Page 1 of 2  
**3) Reporting Requirements (Please Circle)**  
 Turnaround: \_\_\_\_\_  
 When Available:  
 1 Business Day (100%)\*  
 2 Business Days (75%)\*  
 3 Business Days (50%)\*  
 4 Business Days (35%)\*  
 5 Business Days (25%)\*  
 8 Business Days (Stand.)  
 Other: \_\_\_\_\_

**Customer Information**  
 1a) Customer: Whitesone Associates, Inc.  
 Address: \_\_\_\_\_  
 1b) Email/Cell/Fax/Ph: \_\_\_\_\_  
 1c) Send Invoice to: Eric Harris, Katie Friel  
 1d) Send Report to: Eric Harris, Jeff Bowen

**Project Information**  
 2a) Project: EP2016A42.001  
 2b) Project Mgr: Eric Harris  
 2c) Project Location (City/State): Edgewater Park NJ  
 2d) Quote/PO # (If Applicable): \_\_\_\_\_

**Report Type**  
 Summary  
 Results + QC (Waste)  
 Reduced:  
 NJ  NY  
 PA  Other \_\_\_\_\_  
 NJ Full / NY ASP CatB  
 NY ASP CatA  
 Other: \_\_\_\_\_

**FOR LAB USE ONLY**  
 Batch # AMS 423  
 Matrix Codes:  
 DW - Drinking Water S - Soil A - Air  
 GW - Ground Water SL - Sludge  
 WW - Waste Water OL - Oil  
 OT - Other (please specify under item 9, Comments)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)				8) # of Bottles					9) Comments	
			Date	Time			None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:			
001	B-2A	S	1/28/20	1000	X	X	X	X	X	X	X	X	X	X	X		
002	B-2B	S			X	X	X	X	X	X	X	X	X	X	X		
003	B-4A	S			X	X	X	X	X	X	X	X	X	X	X		
004	B-4B	S			X	X	X	X	X	X	X	X	X	X	X		
001	B-12A	S			X	X	X	X	X	X	X	X	X	X	X		
006	B-12B	S			X	X	X	X	X	X	X	X	X	X	X		
007	B-13A	S			X	X	X	X	X	X	X	X	X	X	X		
008	B-13B	S			X	X	X	X	X	X	X	X	X	X	X		
009	B-14A	S			X	X	X	X	X	X	X	X	X	X	X		
010	B-14B	S			X	X	X	X	X	X	X	X	X	X	X		

10) Relinquished by: \_\_\_\_\_ Accepted by: \_\_\_\_\_ Date: 1/28/2020 Time: 2:30  
 Comments, Notes, Special Requirements, HAZARDS  
 Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):  
 BN or BNA (8270D SIM)   
 VOC (8260C SIM or 8011)   
 SPLP (BN, BNA, Metals)   
 1,4 Dioxane   
 Check if applicable:  
 Project-Specific Reporting Limits  
 High Contaminant Concentrations  
 NJ LSRP Project (also check boxes above/right)  
 For NJ LSRP projects, indicate which standards need to be met:  
 NJ DEP GWQS   
 NJ DEP SRS   
 NJ DEP SPLP   
 Other (specify): \_\_\_\_\_  
 Cooler Temperature 2.9

11) Sampler (print name): Eric Harris Date: 1/28/2020  
 Additional Notes  
 Internal user: sampling plan (check box) HC  or client  FSP# \_\_\_\_\_

**Hampton-Clarke, Inc. (WBE/DBE/SBE)**

175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004  
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458  
 Service Center: 137-D Gather Drive, Mount Laurel, New Jersey 08054  
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056



**CHAIN OF CUSTODY RECORD**

A Women-Owned, Disadvantaged, Small Business Enterprise

Project # (Lab Use Only) 0012911

3) Reporting Requirements (Please Circle)

Page 2 of 2

Customer: WhiteStone Associates, Inc.

Address:

Email/Cell/Fax/Ph:

Eric Hannis, Katie Enzi

Send Invoice to:

Eric Hannis, Jeff Swain

Send Report to:

Eric Hannis

Customer Information  
 2a) Project: EP2016Q42: 001  
 Project Information  
 2b) Project Mgr: Eric Hannis  
 2c) Project Location (City/State): Edgewater Park NJ  
 2d) Quote/PO # (if Applicable):

Turnaround  
 When Available:  
 1 Business Day (100%)\*  
 2 Business Days (75%)\*  
 3 Business Days (50%)\*  
 4 Business Days (35%)\*  
 5 Business Days (25%)\*  
 8 Business Days (Stand.)

Report Type  
 Summary  
 Results + QC (Waste)  
 Reduced:  
 NJ  NY  
 PA  Other

Electronic Data Deliv.  
 NJ HazSite  
 Excel Reg:  NY / PA  
 EnviroData  
 EQUIS:  
 4-File  EZ  
 NYDEC  
 Region 2 or 5

\* Expedited TAT Not Always Available. Please Check with Lab.

FOR LAB USE ONLY  
 Matrix Codes  
 DW - Drinking Water S - Soil A - Air  
 GW - Ground Water SL - Sludge  
 WW - Waste Water OL - Oil  
 OT - Other (please specify under item 9, Comments)

7) Analysis (specify methods & parameter lists)

8) # of Bottles  
 None  
 MeOH  
 En Core  
 NaOH  
 HCl  
 H2SO4  
 HNO3  
 Other:

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)							8) # of Bottles					9) Comments						
			Date	Time																					
<u>011</u>	<u>B-15A</u>	<u>S</u>	<u>1/28/20</u>	<u>1050</u>		<u>X</u>	<u>VOT 15</u>	<u>X</u>	<u>BN+15</u>	<u>X</u>	<u>EPH-CAT 2</u>	<u>X</u>	<u>TAL Metals</u>	<u>X</u>	<u>PCB:</u>		<u>2</u>	<u>3</u>							
<u>012</u>	<u>B-15B</u>	<u>S</u>	<u>1/29/20</u>	<u>1055</u>		<u>X</u>		<u>X</u>		<u>X</u>							<u>2</u>	<u>3</u>							

10) Relinquished by:	Accepted by:	Date	Time	Comments, Notes, Special Requirements, HAZARDS
<u>[Signature]</u>	<u>[Signature]</u>	<u>1/29/20</u>	<u>900</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>1/29/20</u>	<u>930</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>1/29/20</u>	<u>1045</u>	

11) Sampler (print name): Eric Hannis Date: 1/28/2020

Additional Notes

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):  
 BN or BNA (8270D SIM)   
 VOC (8260C SIM or 8011)   
 SPLP (BN, BNA, Metals)   
 1,4 Dioxane

Check if applicable:  
 Project-Specific Reporting Limits  
 High Contaminant Concentrations  
 NULSRP Project (also check boxes above/right)  
 Please note NUMBERED items. If not completed your analytical work may be delayed.  
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

Internal use: sampling plan (check box)  HC  or client  FSP# 009

Cooler Temperature 009

**ATTACHMENT C**  
**Geophysical Report**



## ***GEOPHYSICAL INVESTIGATION REPORT***

### **SITE LOCATION:**

4295 US-130  
Edgewater Park, New Jersey

### **PREPARED FOR:**

Whitestone Associates, Inc.  
1600 Manor Drive, Suite 220  
Chalfont, Pennsylvania

### **PREPARED BY:**

Benjamin Rimler  
Delta Geophysics Inc.  
738 Front Street  
Catasauqua, PA 18032

January 30, 2020

Delta Geophysics, Inc. (Delta) is pleased to provide the results of the geophysical survey conducted at 4295 US-130, Edgewater Park, New Jersey.

## **1.0 INTRODUCTION**

On January 20, 2020 Delta Geophysics personnel performed a limited geophysical investigation at 4295 US-130, Edgewater Park, New Jersey. The area of interest was all accessible areas on the property. Surface conditions consisted of asphalt, concrete, and grass. Subsurface conditions were unknown at time of survey.

## **2.0 SCOPE OF WORK**

The primary objective was to locate any unknown subsurface anomalous features consistent with USTs or excavations. A secondary objective was to locate and mark detectable underground utilities in survey area.

## **3.0 METHODOLOGY**

Selection of survey equipment is dependent site conditions and project objectives. For this project the technician utilized the following equipment to survey the area of concern:

- Geophysical Survey Systems Inc. SIR-3000 cart-mounted Ground Penetrating Radar (GPR) unit with a 400 Mhz antenna.
- Radiodetection RD7000 precision utility locator.
- Fisher M-Scope TW-6 pipe and cable locator.

Ground penetrating radar (commonly called GPR) is a geophysical method that has been developed over the past thirty years for shallow, high-resolution, subsurface investigations of the earth. GPR uses high frequency pulsed electromagnetic waves (generally 10 MHz to 1,000 MHz) to acquire subsurface information. Energy is propagated downward into the ground and is reflected back to the surface from boundaries at which there are electrical property contrasts. GPR is a method that is commonly used for environmental, engineering, archeological, and other shallow investigations.

The GSSI SIR-3000 GPR can accept a wide variety of antennas which provide various depths of penetration and levels of resolution. The 400 MHz antenna can achieve depths of penetration up to about 20 feet, but this depth may be greatly reduced due to site-specific conditions. Signal penetration decreases with increased soil conductivity. Conductive materials attenuate or absorb the GPR signal. As depth increases the return signal becomes weaker. Penetration is the greatest in unsaturated sands and fine gravels. Clayey, highly saline or saturated soils, areas covered by steel reinforced concrete, foundry slag, of other highly conductive materials significantly reduces GPR depth of penetration.

The GPR was configured to transmit to a depth of approximately 10 feet below the subsurface, but actual signal penetration was limited to approximately 3-5 feet below ground surface (bgs). The limiting factor was signal attenuation from near surface soils.

The RD7000 precision utility locator uses radio emission to trace the location of metal bearing utilities. This radio emission can be active or passive. Active tracing requires the attachment of a

radio transmitter to the utility, passive tracing uses radio emissions that are present on the utility. Underground electrical utilities typically emit radio signals that this device can detect.

The TW-6 is designed to find pipes, cables and other metallic objects such as underground storage tanks. One surveyor can carry both the transmitter and receiver together, making it ideally suited for exploration type searches of ferrous metal masses. Metal detectors of this type operate by generating a magnetic field at the transmitter which causes metallic objects in the subsurface to generate a secondary magnetic field. The induced secondary field is detected by the receiver, which generates an audible tone equal to the strength of the secondary field.

#### **4.0 SURVEY FINDINGS**

All accessible areas of the property were examined during this investigation. Each location was examined with the RD7000 for potential subsurface utilities then surveyed with GPR and TW-6 for other potential anomalies.

##### Nonmetallic Anomaly #1

GPR transects adjacent to the northeast corner of the building imaged a cylindrical feature at 3-4 feet bgs. The anomaly is consistent with an unknown pipe. Soil disturbances were also present throughout the area. Approximate dimensions of the pipe and soil disturbances were 12 feet by 6 feet.

##### Nonmetallic Anomaly #2

GPR transects in the northwest corner of the grass lot imaged a flat feature at 1-2 feet bgs. Approximate dimensions measure 16 feet by 8 feet. The anomaly was in the location of a reported sanitary structure.

##### Buried Catch Basin

TW-6 transects located a metallic anomaly in the southeast corner of the grass lot. GPR transects imaged soil disturbances at 1-foot bgs. Delta personnel traced storm sewer piping west from a utility vault for approximately 6 feet where it terminated at the anomaly. The metallic anomaly is consistent with a catch basin.

##### Buried Manholes

TW-6 transects located 7 metallic anomalies in the asphalt lots northeast and southwest of the building. GPR transects over each anomaly imaged a flat feature at 0-1 feet bgs. Each feature was circular shaped with a diameter of approximately 2.5 feet. The metallic anomalies are consistent with buried manhole covers.

##### *Utility Survey*

Delta performed a utility survey across the client specified area. The following utilities were identified: Electric conduit, natural gas, storm sewer, sanitary sewer, water, and unknown utilities. All detectable utilities were marked onsite with appropriate colors. Anomalous features and unknown utilities were marked onsite in pink paint.

A site map (012020) is included with all located subsurface features.



## **5.0 SURVEY LIMITATIONS**

GPR depth of penetration was limited to approximately 3-5 feet bgs. The limiting factor was due to conductive soils. Vehicles parked in the designated spaces throughout the asphalt lots prevented Delta from surveying some portions of the property.

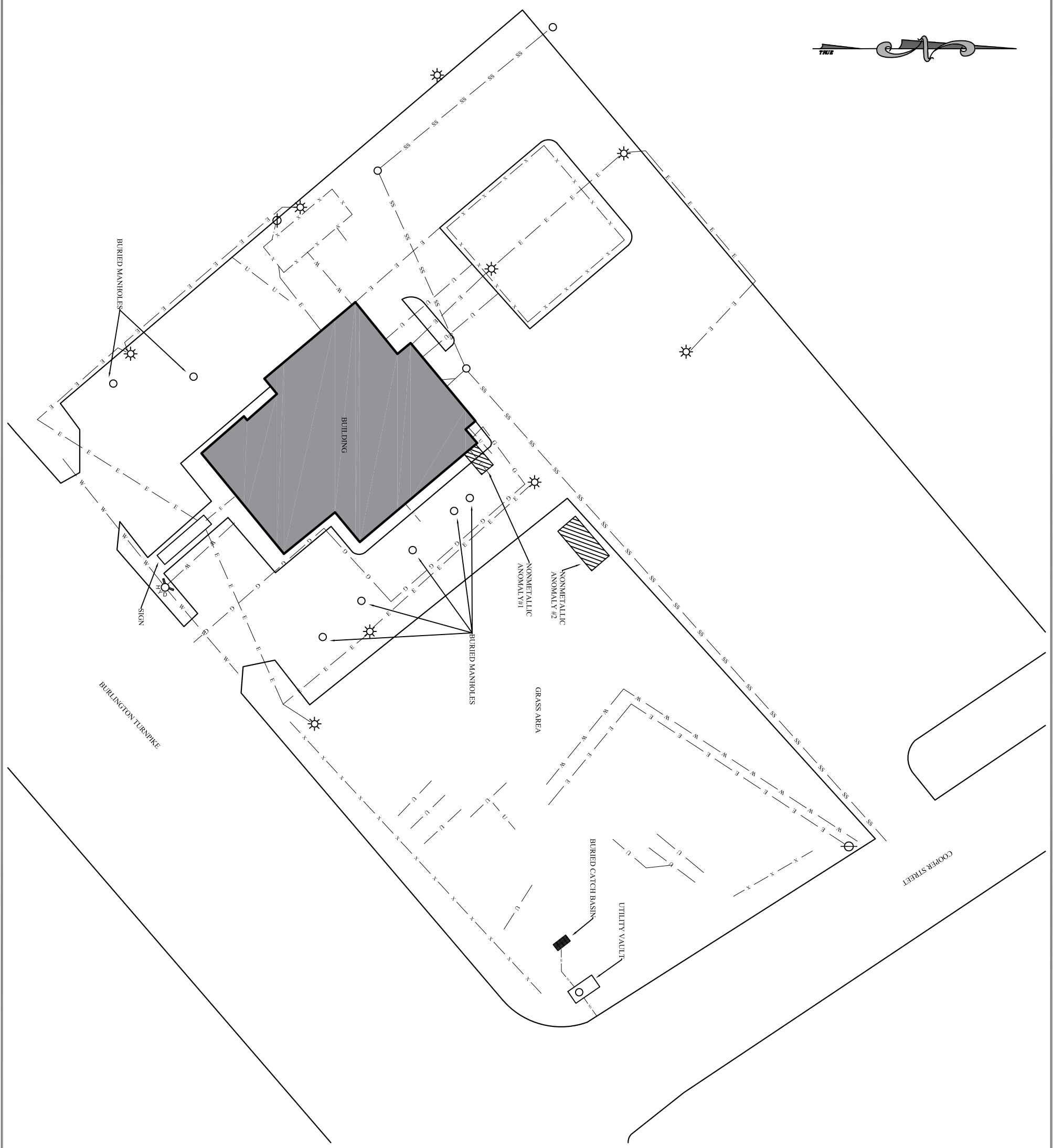
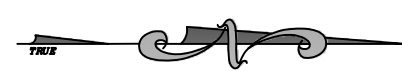
## **6.0 WARRANTIES AND DISCLAIMER**

As with any geophysical method, it must be stressed that caution be used during any excavation or intrusive testing in proximity to any anomalies indicated in this report. In addition, the absence of detected signatures does not preclude the possibility that targets may exist. To the extent the client desires more definitive conclusions than are warranted by the currently available facts; it is specifically Delta's intent that the conclusions stated herein will be intended as guidance.

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based on the facts currently available within the limit or scope of work, budget and schedule. Delta represents that the services were performed in a manner consistent with currently accepted professional practices employed by geophysical/geological consultants under similar circumstances. No other representations to Client, express or implied, and no warranty or guarantee is included or intended in this agreement, or in any report, document, or otherwise.

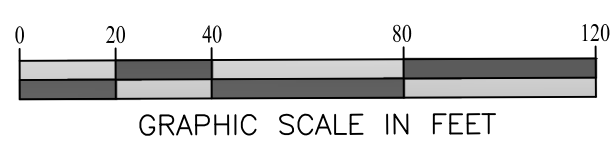
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LEGEND

- E — ELECTRIC
- G — NATURAL GAS
- SD — STORM SEWER
- SS — SANITARY SEWER
- U — UNKNOWN
- X — FENCE
- W — WATER
- LIGHT POLE
- UTILITY POLE
- UTILITY MANHOLE
- FIRE HYDRANT
- CATCH BASIN



**NOTES:**  
 This site plan was produced from data positioned by differential GPS measurements collected in the field. Due to the errors normally present in DGPS data, this document is not intended or represented to be of survey precision. Caution should be used in all field measurements based on this site plan.  
 As with any geophysical method, it must be stressed that caution be used during any excavation or intrusive testing in proximity of any anomalies indicated in this document. The absence of detected signatures does not preclude the possibility that targets exist. The geophysical data and results presented in this site plan are based upon the application of scientific principles and professional judgements to certain facts with resultant subjective interpretations. Professional judgements expressed herein are based on the facts currently available within the limits of the existing data, scope of work, budget, and schedule.  
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DATE	01/30/20
SCALE	1" = 40'
DWG NO.	012020
SHT NO.	1 OF 1
PROJECT.	

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