

FORMER BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
NYSDEC ID: 152262

SELF IMPLEMENTING CLEANUP PLAN OF PCB REMEDIATION WASTE

SUBMITTED TO:



United States Environmental Protection Agency
Region 2
290 Broadway
New York, NY 10007-1866

PREPARED FOR:



Suffolk County Department of Health Services
Office of Pollution Control
15 Horseblock Place
Farmingville, New York 11738

PREPARED BY:



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PWGC Project Number: SHD2201

MARCH 2025

SELF IMPLEMENTING CLEANUP PLAN OF PCB REMEDIATION WASTE FORMER BOMARC SITE

TABLE OF CONTENTS	PAGE
1.0 INTRODUCTION	1
2.0 SITE DESCRIPTION & PHYSICAL SETTING	2
2.1 Site Location and Description	2
2.2 Site History	2
2.3 Current and Future Site Use.....	2
2.4 Regional Geology & Hydrogeology	2
2.5 Site Features	3
3.0 NATURE OF CONTAMINATION	4
3.1 PWGC UIC Structure Sampling and Remediation (January 2014)	4
3.2 BOMARC UIC Data Summary and UIC Remedial Cost Estimate (August 12, 2021).....	5
3.3 PWGC UIC Characterization (September 2023)	6
3.4 Location and Extent of Impacted Areas	7
4.0 REMEDIAL WORK PLAN	9
4.1 Remedial Action Objectives	9
4.1.1 Surface and Subsurface Soil	9
4.2 Proposed Cleanup	9
4.3 Remedial Activities	9
4.3.1 UIC Structures	9
4.3.2 Floor Drains	9
4.3.3 Surficial Soils.....	9
4.3.4 Fireworks Burn Pits	10
4.4 Post Remedial Sampling.....	10
4.4.1 Soil Sampling	10
4.4.2 Surficial Wipe Sampling.....	11
4.4.3 Sampling Equipment Decontamination	11
4.5 Waste Handling.....	11
4.6 Soil Disposal	11
4.7 Cleanup Schedule.....	12
4.8 Reporting	12
5.0 REFERENCES	13
6.0 CERTIFICATION	14



**SELF IMPLEMENTING CLEANUP PLAN OF PCB REMEDIATION WASTE
FORMER BOMARC SITE**

FIGURES

Figure 1	Vicinity Map
Figure 2	Site Plan
Figure 3	Depth to Water
Figure 4	Excavation Plan

TABLES

Table 1	Soil Sample Analytical Results – VOCs
Table 2	Soil Sample Analytical Results – SVOCs
Table 3	Soil Sample Analytical Results – Metals
Table 4	Soil Sample Analytical Results – PCBs

APPENDICES

Appendix A	IRM Work Plan
Appendix B	Site Photographs
Appendix C	SCDHS Sampling Documentation (2019)
Appendix D	Typical Storm Drain Detail
Appendix E	UIC Characterization Report (2023)





1.0 INTRODUCTION

P.W. Grosser Consulting, Inc. (PWGC) on behalf of the Suffolk County Department of Health Services (SCDHS) has prepared this work plan to serve as notification to the United States Environmental Protection Agency (USEPA) for the planned cleanup of soils impacted by polychlorinated Biphenyls (PCBs) as required by 40 CFR Part 761.61.

Remediation will be performed as part of an Interim Remedial Measure (IRM) under New York State Department of Environmental Conservation (NYSDEC) oversight. The scope of the IRM is limited to remediation of impacted underground injection control (UIC) structures at the site; a copy of the IRM is included as **Attachment A**.

PWGC and SCDHS understand that remediation of non-PCB related impact at the site is outside the scope of the Self Implementing Cleanup Plan and will solely fall under the NYSDEC approved IRM.



2.0 SITE DESCRIPTION & PHYSICAL SETTING

2.1 Site Location and Description

The Site is located at 100 Old Country Road, in the hamlet of Westhampton, New York. The Site is in the Town of Southampton, Suffolk County. The property is identified in the Suffolk County Tax Map as: 0900-331.00-01.00-Lot Nos. 001.100, and 002.000 through 015.000.

The Site measures approximately 186 acres in size and is located to the north of Old Country Road and west of Old Westhampton Road. The property includes 56 structures which originally housed BOMARC missiles, along with other structures utilized by Suffolk County. Large parking lots are also present at the site along with a police firing range. The Site is bounded to the north by undeveloped pine barrens, to the east by commercial/industrial land uses, to the south by Old Country Road, and to the west by recent residential development.

A Vicinity Map is included as **Figure 1**. A Site Plan is included as **Figure 2**.

2.2 Site History

The former BOMARC Missile Base was operated by the US Air Force as one of 10 BOMARC facilities protecting the east coast from a potential Soviet air attack from 1959 until it was decommissioned in 1964. Fifty-six nuclear-tipped missiles were located at this facility which utilized tritium and required frequent maintenance (every 90 days). After decommissioning, the property was turned over to Suffolk County as surplus property in the 1960s.

2.3 Current and Future Site Use

The site is currently utilized by Suffolk County as a police training facility/firing range, police impound lot, and county storage area. Significant changes in use of the site are not planned for the near future.

2.4 Regional Geology & Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The Raritan clay is a solid and silty clay with that is gray, red or white in color with few lenses of sand and gravel and abundant lignite and pyrite.

Above the Raritan Clay lies the Magothy Formation. The Magothy aquifer consists of layers of fine to coarse sand of moderate to high permeability, with inter-bedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow. Therefore, this aquifer generally becomes more confined with depth. The Magothy Formation is overlain by the Upper Glacial deposits which contains the Upper Glacial aquifer. The Upper Glacial



aquifer is the water-table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the water table to the top of the Magothy and, therefore, is hydraulically connected to the Magothy aquifer.

The aquifer of concern at the former BOMARC site is the Upper Glacial aquifer which is an unconsolidated mixture of sand and gravel. The Upper Glacial aquifer is approximately 100 feet thick (saturated zone) at the site and has an estimated average horizontal hydraulic conductivity (permeability) of 270 feet/day and a vertical hydraulic conductivity of 27 feet/day (Franke & Cohen, 1972).

Clay layers, such as the Gardiners clay and the "20-Foot-clay," where present, may act as local confining units, separating the Upper Glacial aquifer from the underlying Magothy aquifer which is the principal source of drinking water in Suffolk County. These clay layers extend throughout much of the south shore of Long Island and are likely present just south of the site.

Based on United States Geological Survey (USGS) data, the approximate depth to groundwater beneath the site ranges from 30 to 45 feet below grade. USGS groundwater data is illustrated in **Figure 3**.

2.5 Site Features

The project site elevation is approximately 50 feet above mean sea level and is generally level, with the exception of several earthen berms at the northern end of the property associated with the police firing range. The site is developed with multiple warehouse and office buildings used by Suffolk County, 56 former BOMARC missile bunkers currently used for storage, and a police firing range. There are multiple unpaved parking areas throughout the property used as vehicle impound lots by Suffolk County.



3.0 NATURE OF CONTAMINATION

The following investigations pertinent to remedial activities that will be performed as part of the UIC IRM were performed at the Site to determine if past activities had impacted the sediment within onsite UIC structures. Results of these Site investigations confirmed the presence of VOCs, SVOCs, metals above SCDHS Action Levels, and PCBs above NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs) standards in sediments within UIC structures. These UICs will require remediation.

As discussed in the Reports detailed below and IRM Plan remediation at the site is currently limited to underground injection control (UIC) structures such as septic tanks, storm drains, and floor drains. Characterization at the site thus far has solely consisted of sampling of these structures. Additional characterization throughout the site will be performed as directed by NYSDEC, if needed, following completion of the IRM. To the best of PWGC's and SCDHS's knowledge, no groundwater data for PCBs exists for the site.

Per 40 CFR Part 761 Subpart N, characterization sampling should be performed using a grid interval of 3 meters. Based on their size, each of the UIC structures included in the scope of the IRM falls within a single 3 meter by 3 meter grid square; as such, one sample per structure is sufficient to meet the sampling frequency defined in 40 CFR Part 761 Subpart N. Photos of UIC structures are included in **Attachment B**, and the documentation for the 2019 SCDHS sampling event included as **Attachment C**; a detail illustrating a typical storm drain is included as **Attachment D**.

3.1 PWGC UIC Structure Sampling and Remediation (January 2014)

During the Suffolk County Department of Public Works (SCDPW) UIC Maintenance Program, PWGC investigated the BOMARC property and identified several structures associated with the sitewide sanitary system, as well as several floor drains within the buildings on the property. Each of the accessible UIC structures were sampled in accordance with the SCDHS Standard Operating Procedure (SOP) 9-95 and analyzed for VOCs, SVOCs and metals. Two structures, UIC001 (primary cesspool of the sitewide sanitary system) and UIC004 (Building C0205 floor drain) exhibited levels of SVOCs and/or metals above SCDHS Action Levels.

The sitewide sanitary system consists of the primary cesspool, a septic tank, six junction boxes and three subsurface secondary cesspools located southwest of the primary cesspool. Correspondence between PWGC, SCDHS, and SCDPW personnel concluded that the sitewide sanitary system, due to its elevated levels of chromium (370 mg/kg) in the primary cesspool, should be remediated. In addition, SCDHS indicated that the floor drain located in Building C0205 should be remediated prior to abandonment.



Remediation of the sitewide sanitary system was performed in March 2014. Remedial effort included the following:

- Removal of impacted sediment from six solid bottom junction boxes throughout the site.
- Characterization samples collected from three overflow cesspools associated with the sitewide sanitary system. No impact above SCDHS Action Levels were detected in samples collected from the structures.
- Removal of impacted sediment from building C0205 floor drain (AKA S-18).
- The March 2014 remediation was scheduled to include the sitewide sanitary system septic tank (AKA S-3) and primary cesspool; however, this was not completed at that time due to a water leak. Remediation of the sitewide sanitary system will be completed under the scope of the UIC IRM.

3.2 BOMARC UIC Data Summary and UIC Remedial Cost Estimate (August 12, 2021)

The SCDHS, under the directive of Resolution 1065-2018 of the Suffolk County Legislature, performed a limited site evaluation at the Site. A total of 25 locations were deemed areas of concern (AOC) based upon a walk-through and a review of historic information from department records. Impacts to UIC structures included presence of VOCs, SVOCs, heavy metals and polychlorinated biphenyls (PCBs) in exceedance of SCDHS Action Levels and/or NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) in seven UIC structures and/or discharge points. As there are no cleanup criteria for PCBs in the SCDHS SOP 9-95, PCB results were compared to NYSDEC UUSCOs. The presence of PCBs, and possibly other contaminants, may be indicative of legacy impacts occurring prior to Suffolk County ownership.

Structure ID	Description	Sample Date	Suffolk County SOP-9-95 Exceedance			UUSCOs Exceedance for PCBs?	Total PCBs (ppm)
			VOCs	SVOCs	Metals		
S-2	Storm Drain	4/30/19	No	No	No	Yes	4.3
S-3	Septic Tank	4/30/19	Yes	No	No	Yes	0.598
S-16	Floor Drain	5/1/19	Yes	Yes	Yes	Yes	593
S-17	Floor Drain	5/1/19	No	Yes	Yes	Yes	9,560
S-17OF	Floor Drain Discharge Point	3/23/21	No	No	No	Yes	1.59
S-18	Floor Drain	5/1/19	No	No	No	Yes	7.11

Structure ID	Description	Sample Date	Suffolk County SOP-9-95 Exceedance			UUSCOs Exceedance for PCBs?	Total PCBs (ppm)
			VOCs	SVOCs	Metals		
S-22	Former Burn Pits	5/1/19	Yes	No	Yes	Yes	6.07

Documentation for the 2019 SCDHS sampling event, including photographs of sampled structures, is included as **Attachment B**.

3.3 PWGC UIC Characterization (September 2023)

From December 2022 to March 2023, PWGC performed additional sampling of onsite UIC structures in accordance with the approved IRM Plan. This included resampling structures sampled by SCDHS in 2019, and sampling additional structures determined to be connected to impacted structures identified by SCDHS sampling. Sampling procedures and results are documented in a September 2023 UIC Characterization Report that was submitted to NYSDEC.

Structure ID	Description	Sample Date	Suffolk County SOP-9-95 Exceedance			UUSCOs Exceedance for PCBs?	Total PCBs (ppm)
			VOCs	SVOCs	Metals		
S-2	Storm Drain	4/30/19	No	No	No	Yes	4.3
		12/21/22	No	No	No	No	ND
S-3	Septic Tank	4/30/19	Yes	No	No	Yes	0.598
		12/21/22	Yes	No	Yes	Yes	0.285
S-16	Floor Drain	5/1/19	Yes	Yes	Yes	Yes	593
		12/21/22	No	Yes	Yes	Yes	326
S-16A (0-6")	Washout Area	3/30/23	No	No	No	Yes	0.525
S-16A (6-12")	Washout Area	3/30/23	N/A	N/A	N/A	Yes	0.512
S-17	Floor Drain	5/1/19	No	Yes	Yes	Yes	9,560
S-17OF	Floor Drain Discharge Point	3/23/21	No	No	No	Yes	1.59

Structure ID	Description	Sample Date	Suffolk County SOP-9-95 Exceedance			UUSCOs Exceedance for PCBs?	Total PCBs (ppm)
			VOCs	SVOCs	Metals		
S-17DW	Floor Drain Discharge Drywell	12/21/22	No	Yes	No	Yes	0.531
S-18	Floor Drain	5/1/19	No	No	No	Yes	7.11
		12/21/22	No	No	No	N/A	N/A
S-22	Former Burn Pits	5/1/19	Yes	No	Yes	Yes	6.07
FP001	Former Burn Pit	12/20/22	Yes	No	Yes	No	ND
FP002	Former Burn Pit	12/20/22	No	No	Yes	No	ND

*Due to a lab error, sample S-18 was not analyzed for PCBs.

Data from PWGC's September 2023 Underground Injection Control Characterization Report is summarized in **Table 1** through **Table 4**. A copy of the full September 2023 Underground Injection Control Characterization Report is included as **Attachment E**.

3.4 Location and Extent of Impacted Areas

Site investigations have identified VOCs, SVOCs, metals and PCB impact to soil within and associated with UIC structures. Impact to be addressed under this Self-Implementing Cleanup Plan is limited to those areas requiring remediation in accordance with the NYSDEC approved IRM for the site. These impacted areas primarily consist of UIC structures including septic tanks, storm drains and floor drains.

Impact exceeding applicable standards was identified in the following UIC structures:

- Drywells S-2 and S-17DW/S-17OF – these are below grade drywells constructed of precast concrete rings used to leach storm water (SD-2) and floor drain discharge (S-17DW).
- Septic tank S-3 – this is a precast concrete septic tank which is part of the sitewide sanitary system.
- Floor drains S-16, S-17 and S-18 – these are small (less than one foot diameter) interior floor drains that discharge to the subsurface (directly or indirectly).

Impact exceeding applicable standards was also identified at the following locations:

- Floor drain washout area S-16A – this is a small (approx. 3 foot by 3 foot) depression modified into a makeshift UIC structure where floor drain S-16 drained to.



- Former firework burn pits – these are two below grade concrete structures that were used to dispose of illegal fireworks seized by the police department. They are no longer used and have been backfilled.



4.0 REMEDIAL WORK PLAN

4.1 Remedial Action Objectives

4.1.1 Surface and Subsurface Soil

Contaminants of concern detected in soils consist of VOCs, SVOCs, metals and PCBs within multiple UIC structures. The RAOs for this medium are to prevent the exposure of humans and environmental receptors to contaminated subsurface soil via dermal contact, and incidental ingestion or inhalation of particulates and to mitigate contaminant migration into groundwater.

4.2 Proposed Cleanup

The proposed remedy for the site is to remove soils from the site exceeding SCDHS Cleanup Objectives for VOCs, SVOCs and metals, and the NYSDEC Unrestricted Use SCO of 0.1 ppm for PCBs.

4.3 Remedial Activities

4.3.1 UIC Structures

Remediation of UIC structures S-2, S-3 S-17DW, and S-17OF will include the removal of impacted sludge/sediment from within impacted UIC structures using a Vactor Tuck (or similar) until visibly clean, native material is encountered and verification sampling confirms that no impact above applicable standards remains, or a solid bottom is encountered. Standing liquids, if present will be removed and properly disposed of utilizing a pump truck prior to sludge/sediment removal.

4.3.2 Floor Drains

Remediation of floor drains S-16, S-17 and S-18 will consist of removal of the concrete slab around impacted floor drains in order to remove subsurface soil. Impacted soil within and surrounding the floor drains will be remediated via hand tools and/or Vactor Truck (or similar) and properly staged onsite in 55-gallon drums and/or stockpiled in accordance with the methodology specified in the approved IRM in preparation of waste characterization sampling and offsite disposal. Impacted soils will be removed until verification sampling confirms that no impact above applicable standards remains. Concrete and other construction and demolition debris (C&D) generated during the removal of the floor drains will be containerized and disposed of with impacted soils, as described above.

As historical samples collected from floor drains S-16 and S-17 contained PCBs at concentrations exceeding 50 ppm, wastes generated during their removal (soil/sediment and C&D debris) will be segregated from other wastes.

4.3.3 Surficial Soils

Remediation of surficial soils around sample location S-16A will consist of the removal of impacted soils within the washout area. The washout area is a small (approx. 3 foot by 3 foot) depression behind the building modified into a



makeshift UIC structure with discharge piping entering it. In order to remove PCB impact from this area, the depression and area surrounding it (approx. 10 foot by 10 foot) will be excavated to a minimum of two feet below grade and confirmatory endpoint samples will be collected at a frequency as specified in the approved IRM Plan and NYSDEC DER-10 5.4(b)5, which specifies a minimum frequency of one sample per 900 square feet of bottom, and one sample per 30 linear feet of sidewall. The excavation area will be extended vertically and horizontally until satisfactory endpoint sample results are achieved. The approximate extent of excavation and proposed sampling plan for this location is illustrated in **Figure 4**.

Impacted soil will be remediated via Vactor Truck and/or excavator (or similar) and properly staged onsite in 55-gallon drums and/or stockpiled in accordance with the methodology specified in the approved IRM in preparation of waste characterization sampling and offsite disposal. Concrete and other debris generated during excavation will be containerized and disposed of with impacted soils, as described above.

4.3.4 Fireworks Burn Pits

Investigation of fireworks burn pits FP001 and FP002 has determined that both are solid bottom structures. However, both contain fill material impacted with VOCs and metals. Remediation of these structures will consist of the removal of impacted fill material. Impacted soil will be remediated via Vactor Truck and/or excavator (or similar) and properly stockpiled in accordance with the methodology specified in the approved IRM in preparation of waste characterization sampling and offsite disposal. Following soil removal the concrete bottom of each structure will be removed to prevent water from accumulating within the structures.

4.4 Post Remedial Sampling

4.4.1 Soil Sampling

Following completion of remedial activities, confirmatory endpoint soil samples to verify the effectiveness of remediation will be collected as follows in accordance with the SCDHS SOP 9-95, and NYSDEC DER-10:

- UIC leaching structures (S-2, S-17OF, S-17DW) – one three-point composite sample from the base of the remediated structure.
- Solid bottom (non-leaching) UIC structures (S-3) - will not require confirmatory soil sampling.
- Floor drains (S-16, S-17, S-18) – one grab sample from the base of each floor drain excavation.
- Surficial soils (S-16A) – one bottom sample per 900 square feet of bottom area, and one sample from the base of each sidewall with a minimum of one sample per 30 feet of sidewall.
- Former fireworks burn pits (FP001, FP002) – one three-point composite sample from the base of the remediated structure.



4.4.2 *Surficial Wipe Sampling*

For concrete UIC structures that will remain in place (S-2, S-3, S-17OF, S-17DW), surface wipe samples will be collected for PCBs. Wipe sample frequency will be in accordance with 40 CFR Part 761 Subpart N, to the extent practical based on access limitations to the interior of the structures.

4.4.3 *Sampling Equipment Decontamination*

Sampling equipment decontamination will be performed in accordance with the Quality Assurance Project Plan (QAPP) included as Section 5 of the NYSDEC approved IRM. Decontamination procedures are specified in Section 5.7 of the IRM and require that all sampling equipment be cleaned with a laboratory grade detergent and distilled water rinse prior to collection of each sample.

4.5 **Waste Handling**

As specified in Section 3.1.2 of the NYSDEC approved RAWP, the preferred method for storing soils onsite will be in roll-off containers and/or DOT approved 55-gallon drums. In the event that soils are stockpiled, stockpiling will conform with the requirements specified in 40 CFR 761.65(c)(9).

4.6 **Soil Disposal**

Soils and debris generated during remediation will have waste characterization sampling performed on them prior to being shipped offsite. Waste characterization sampling will be performed in accordance with the requirements disposal facility(ies).

Material removed containing PCBs greater than 50 ppm will be shipped to a TSCA regulated/approved facility under proper manifest. Soils containing PCBs at concentrations less than 50 ppm will be excavated and disposed of as a non-TSCA waste. Bills of lading and waste manifests will be provided as an appendix in the Construction Completion Report (CCR) which will detail remedial activities conducted at the site.

Based on sampling performed to date (see §3.1 through §3.3), it is anticipated that soil and C&D generated during implementation of the IRM will be segregated as follows:

- Material generated by the removal of floor drains S-16 and S-17 will be segregated as material containing PCBs greater than 50 ppm.
- Material generated during remediation of the remaining structures included in the scope of the IRM (see §4.3) will be segregated as material containing PCBs less than 50 ppm. This will include structures: S-2, S-3, S-16A, S-17DW, S-17OF, S-18, FP001 and FP002.

Waste characterization sampling will be performed on all material removed during implementation of the IRM prior to it being shipped offsite.



4.7 Cleanup Schedule

Cleanup will begin within approximately 60 days following USEPA acceptance of the Self Implementing Cleanup Plan contingent upon availability of funding. Field work associated with cleanup will be completed within approximately one to two weeks. Report preparation will take approximately 30 days following completion of field work and receipt of endpoint sample data.

4.8 Reporting

A completion report documenting that the IRM Plan and Self Implementing Cleanup Plan were complied with will be submitted to USEPA following completion of remedial action. The Report will include copies of analytical reports for verification samples, waste approvals and manifests, and appropriate tables and figures as needed.



5.0 REFERENCES

The following documents are available for review:

- Underground Injection Control Structure Remediation, LAD 61 BOMARC, Westhampton, NY, PWGC, January 2014
- Appendix A, Suffolk County Resolution No. 1065-2018 (contains 2020 SCDHS sample data)
- BOMARC UIC Data Summary and UIC Remedial Cost Estimate, SCDHS, August 2021
- Underground Injection Control Interim Remedial Measure Work Plan, BOMARC Site, 100 Old County Road, Westhampton, New York, NYSDEC Site 152262, PWGC, August 2022
- Underground Injection Control Characterization Report, BOMARC Site, 100 Old County Road, Westhampton, New York, NYSDEC Site 152262, PWGC, May 2023





6.0 CERTIFICATION

The undersigned hereby certify that all documents pertaining to sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the site known as the BOMARC Site located in the County of Suffolk, and hamlet of Westhampton Beach, New York and identified in the Suffolk County Tax Map as: 0900-331.00-01.00-Lot Nos. 001.100, and 002.000 through 015.000 are on file at Suffolk County Department of Health Services Office of Pollution Control with an office located at 15 Horseblock Place, Farmingville, New York.

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Signature: _____

Name: _____

Title: _____

Date: _____

PARTY CONDUCTING THE CLEAN UP:

SCDHS - Office of Pollution Control
15 Horseblock Place
Farmingville, New York 11738
(631) 854-2534

Signature: _____

Name: _____

Title: _____

Date: _____

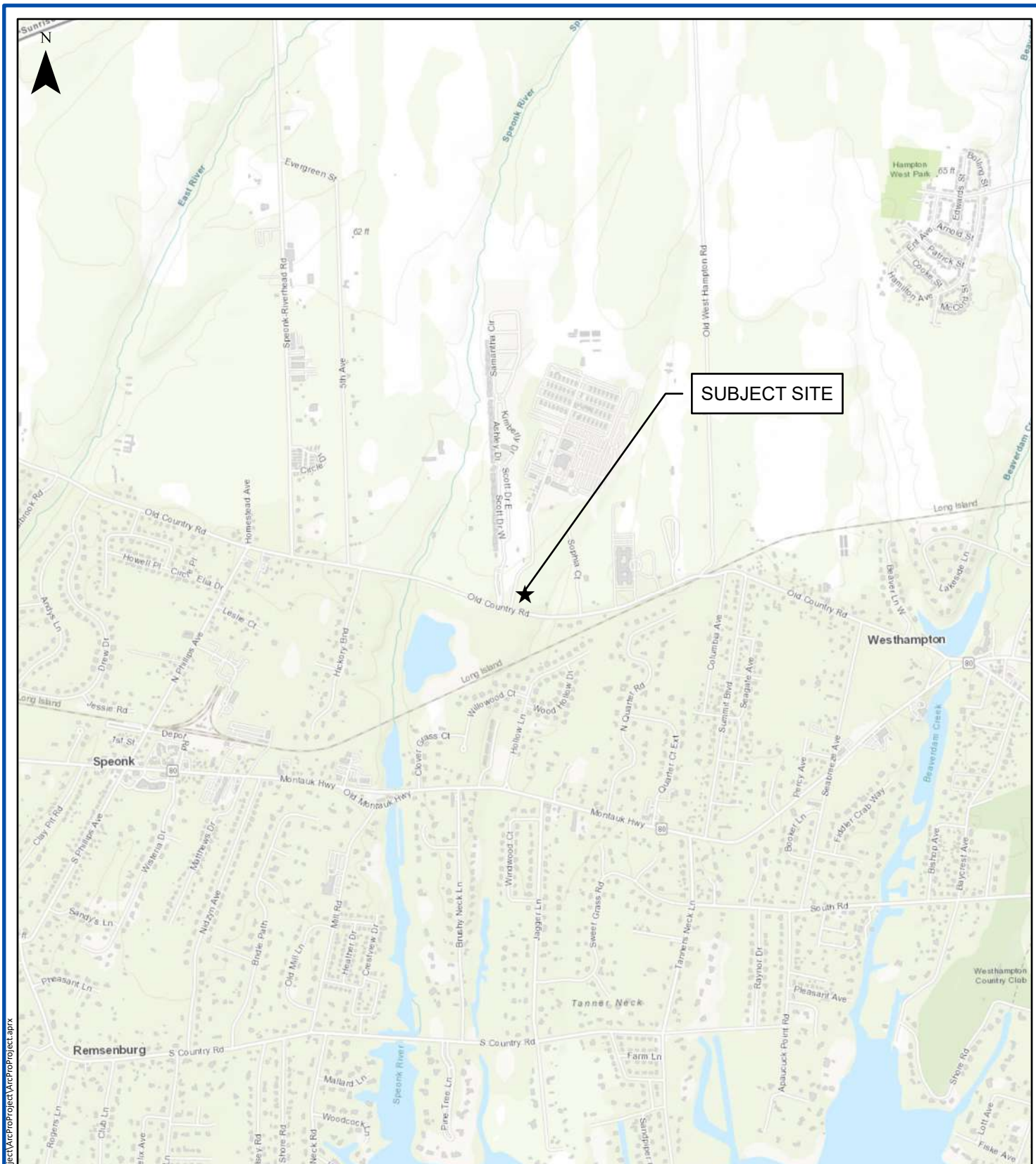
SITE RELATED FILES ARE AVAILABLE FOR REVIEW BY CONTACTING:

Edward Roe
Associate Public Health Sanitarian
SCDHS - Office of Pollution Control
(631) 854-2534
edward.roe@suffolkcountyny.gov



FIGURES

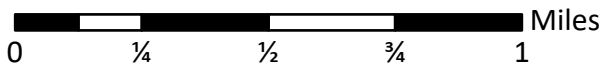




SUBJECT SITE

SITE LOCATION

98 Old Country Road
Westhampton, NY



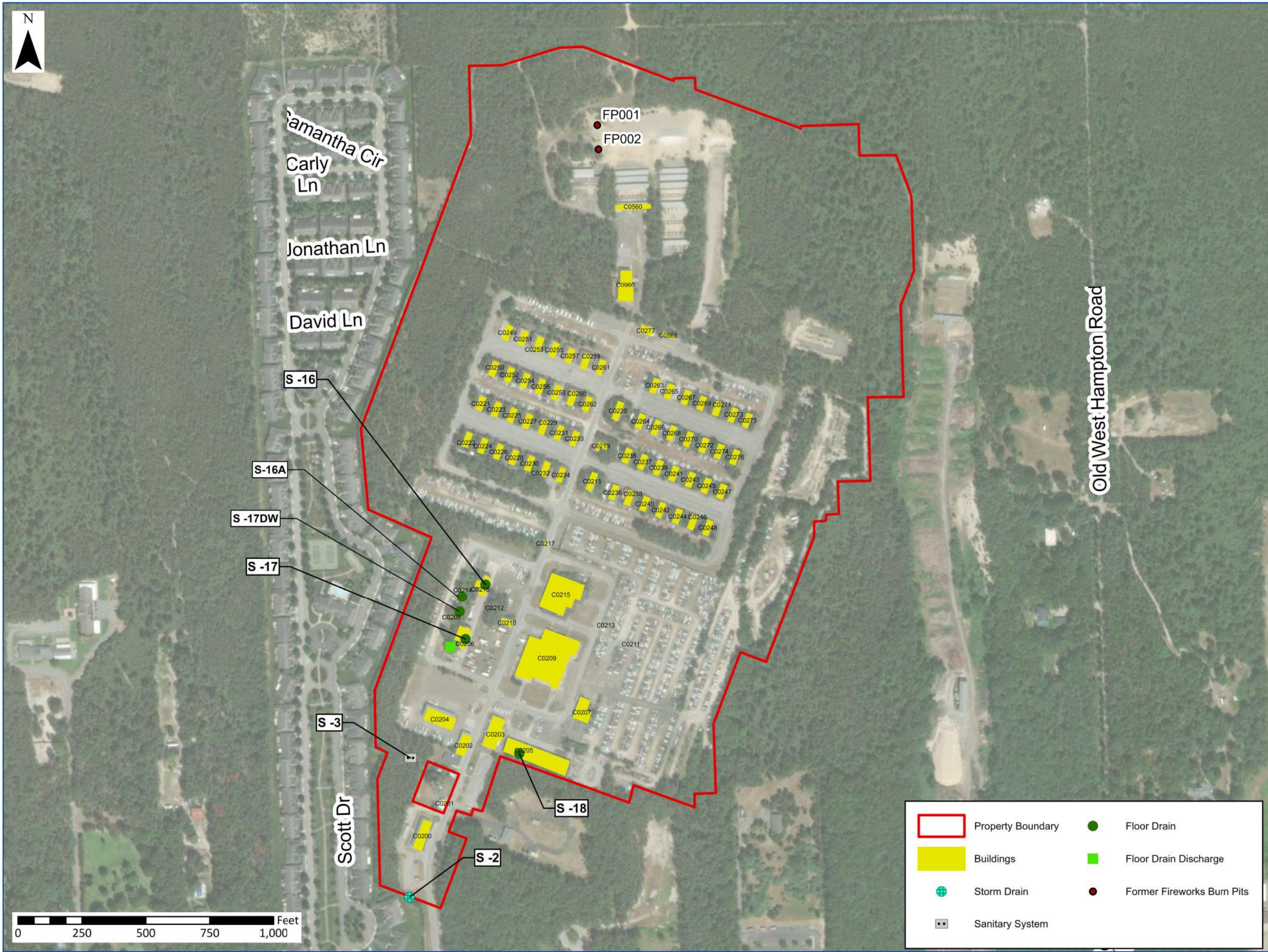
Project:	SHD2201
Date:	4/4/2022
Designed by:	JP
Drawn by:	OA
Approved by:	JP
Figure No:	1



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REVISION	DATE	INITIAL	COMMENTS

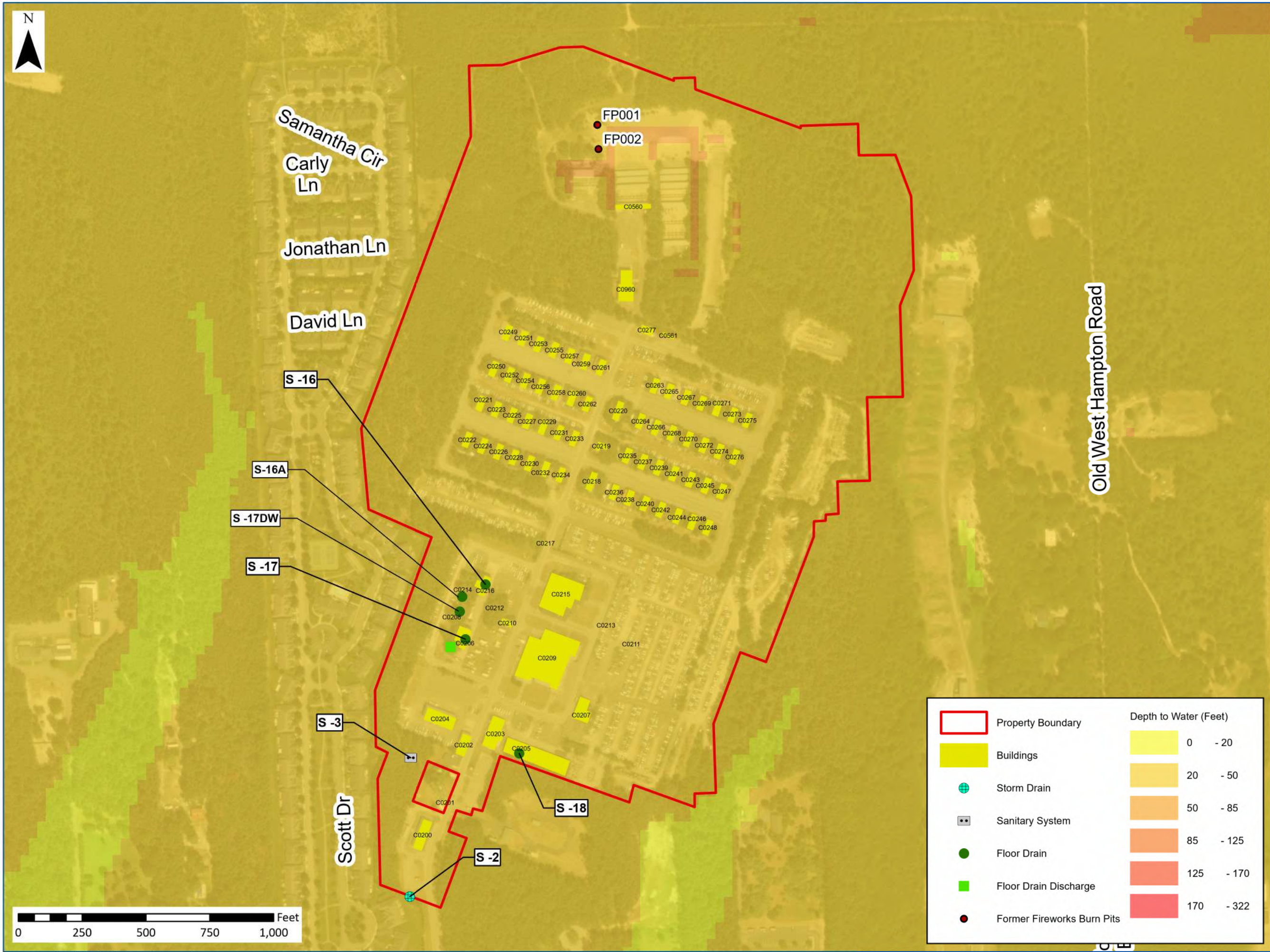
DRAWING INFORMATION:

Project:	SHD2201	Designed by:	JP
Date:	4/21/2023	Drawn by:	OA
Scale:	AS SHOWN	Approved by:	JP

Site Plan

98 Old Country Road
Westhampton, NY

FIGURE NO:



P.W. Grosser Consulting, Inc.

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pwgc.info@pwgros.com

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DRAWING INFORMATION:

Project:	SHD2201	Designed by:	JP
Date:	7/22/2024	Drawn by:	OA
Scale:	AS SHOWN	Approved by:	JP

Depth to Water

98 Old Country Road
Westhampton, NY

FIGURE NO:

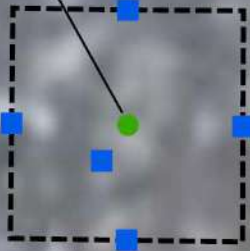
3



C0216

C0214

S-16A



Property Boundary

Buildings

Approximate Excavation Area

Storm Drain

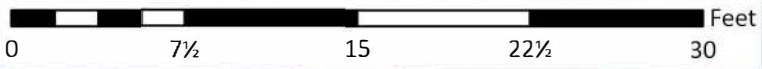
Sanitary System

Floor Drain

Floor Drain Discharge

Former Fireworks Burn Pits

Proposed Endpoint Samples



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REVISION	DATE	INITIAL	COMMENTS

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EXCAVATION PLAN

98 Old Country Road
Westhampton, NY

FIGURE NO:

TABLES



Table 1
Soil Sample Analytical Results - VOCs
Former BOMARC Site

LOCATION LAB SAMPLE ID SAMPLE DATE	CAS Number	SCDHS Action Level	SCDHS Cleanup Objective	Units	S-2 2211187-05 12/21/2022	S-3 2211187-04 12/21/2022	S-16 2211187-01 12/21/2022	S-16A (0-6") L2316688-01 3/30/2023	S-17 DW 2211187-02 12/21/2022	S-18 2211187-03 12/21/2022	FP001_9ft 2211175-01 12/20/2022	FP002_8ft 2211175-02 12/20/2022
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	630-20-6	600	300	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
1,1,1-Trichloroethane	71-55-6	1400	700	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
1,1,2,2-Tetrachloroethane	79-34-5	800	400	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	12000	6000	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
1,1,2-Trichloroethane	79-00-5	200	100	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,1-Dichloroethane	75-34-3	600	300	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,1-Dichloroethylene	75-35-4	600	300	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,1-Dichloropropylene	563-58-6	200	100	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
1,2,3-Trichlorobenzene	87-61-6	17000	8300	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,2,3-Trichloropropane	96-18-4	100	50	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,2,4,5-Tetramethylbenzene	95-93-2	18000	8800	ug/kg	2.6 U	17000 D	5 U	2.9 U	2.9 U	2.7 U	12000 D	1300 D
1,2,4-Trichlorobenzene	120-82-1	17000	8300	ug/kg	2.6 U	8600 D	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,2,4-Trimethylbenzene	95-63-6	7200	3600	ug/kg	2.6 U	41000 D	5 U	2.9 U	2.9 U	2.7 U	61000 D	2500 D
1,2-Dibromo-3-chloropropane	96-12-8	100	50	ug/kg	2.6 U	1400 U	5 U	4.3 U	2.9 U	2.7 U	420 U	300 U
1,2-Dibromoethane	106-93-4	600	300	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,2-Dichlorobenzene	95-50-1	2200	1100	ug/kg	15	1300000 D	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,2-Dichloroethane	107-06-2	100	50	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,2-Dichloropropane	78-87-5	100	50	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,3,5-Trimethylbenzene	108-67-8	16800	8400	ug/kg	2.6 U	16000 D	5 U	2.9 U	2.9 U	2.7 U	20000 D	1400 D
1,3-Dichlorobenzene	541-73-1	4800	2400	ug/kg	2.6 U	19000 D	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,3-Dichloropropane	142-28-9	600	300	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,4-Dichlorobenzene	106-46-7	3600	1800	ug/kg	6.3	410000 D	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,4-Dioxane	123-91-1	NS	NS	ug/kg	52 U	28000 U	100 U	NA	57 U	54 U	8400 U	6100 U
2,2-Dichloropropane	594-20-7	600	300	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
2-Butanone	78-93-3	400	200	ug/kg	2.6 U	1400 U	5 U	3.2 U	2.9 U	2.7 U	420 U	300 U
2-Chloroethylvinyl ether	110-75-8	1000	500	ug/kg	10 U	5600 U	20 U	29 U	11 U	11 U	1700 U	1200 U
2-Chlorotoluene	95-49-8	5200	2600	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
2-Hexanone	591-78-6	13000	6700	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
2-Nitropropane	79-46-9	600	300	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
4-Chlorotoluene	106-43-4	5200	2600	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
4-Methyl-2-pentanone	108-10-1	1400	700	ug/kg	2.6 U	1400 U	7.5 U	14 U	2.9 U	2.7 U	420 U	300 U
Acetone	67-64-1	**	**	ug/kg	6.8 U	2800 U	25	79	21	13	840 U	610 U
Acrolein	107-02-8	100	50	ug/kg	5.2 U	2800 U	10 U	36 U	5.7 U	5.4 U	840 U	610 U
Acrylonitrile	107-13-1	100	50	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
Allyl chloride	107-05-1	400	200	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Benzene	71-43-2	120	60	ug/kg	2.6 U	2100 JD	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Bromobenzene	108-86-1	2800	1400	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Bromochloromethane	74-97-5	400	200	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Bromodichloromethane	75-27-4	4600	2300	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Bromoform	75-25-2	13000	6300	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
Bromomethane	74-83-9	NS	NS	ug/kg	2.6 U	1400 U	5 U	NA	2.9 U	2.7 U	420 U	300 U
Carbon disulfide	75-15-0	5600	2800	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Carbon tetrachloride	56-23-5	1600	800	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
Chlorobenzene	108-90-7	2200	1100	ug/kg	2.6 U	660000 D	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Chlorodifluoromethane (Freon 22)	75-45-6	100	50	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Chloroethane	75-00-3	400	200	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Chloroform	67-66-3	800	400	ug/kg	2.6 U	1400 U	5 U	2.1 U	2.9 U	2.7 U	420 U	300 U
Chloromethane	74-87-3	100	50	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
cis-1,2-Dichloroethylene	156-59-2	500	250	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
cis-1,3-Dichloropropylene	10061-01-5	100	50	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
cis-decahydronaphthalene	493-01-6	200000	100000	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	1100 D
Dibromochloromethane	124-48-1	6200	3100	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
Dibromomethane	74-95-3	400	200	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Dichlorodifluoromethane	75-71-8	600	300	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Ethyl Benzene	100-41-4	2000	1000	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	3600 D	310 JD
Ethyl Ether	60-29-7	600	300	ug/kg	2.6 U	14000 U	50 U	2.9 U	2.9 U	2.7 U	4200 U	3000 U
Ethyl Methacrylate	97-63-7	4200	2100	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Ethyl tert-butyl ether (ETBE)	637-92-3	4000	2000	ug/kg	4.2 U	2200 U	8 U	2.9 U	4.6 U	4.3 U	670 U	480 U
Hexachlorobutadiene	87-68-3	54000	27000	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
Hexachloroethane	67-72-1	22000	1100	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Iodomethane	74-88-4	200	100	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Isopropylbenzene	98-82-8	9400	4700	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	4100 D	300 U
Limonene	5989-27-5	200000	100000	ug/kg	2.6 U	13000 D	5 U	2.6 U	2.9 U	2.7 U	420 U	300 U
Methyl Isothiocyanate (TIC)	556-61-6	600	300	ug/kg	52 U	28000 U	100 U	7.2 U	57 U	54 U	8400 U	6100 U
Methyl Methacrylate	80-62-6	1400	700	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Methyl tert-butyl ether (MTBE)	1634-04-4	200	100	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Methylene chloride	75-09-2	100	50	ug/kg	5.2 U	2800 U	10 U	7.2 U	5.7 U	5.4 U	840 U	610 U
Naphthalene	91-20-3	24000	12000	ug/kg	2.6 U	39000 D	5 U	5.7 U	2.9 U	2.7 U	9300 D	1100 JD
n-butyl acetate	123-86-4	20000	10000	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
n-Butylbenzene	104-51-8	12000	5900	ug/kg	2.6 U	9600 D	5 U	1.4 U	2.9 U	2.7 U	14000 D	1300 D
n-Decane	124-18-5	200000	100000	ug/kg	2.6 U	30000 D	5 U	7.2 U	2.9 U	2.7 U	84000 D	9200 D
n-Hexane	110-54-3	150000	73000	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Nitrobenzene	98-95-3	100	50	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
n-Nonane	111-84-2	200000	100000	ug/kg	2.6 U	16000 D	5 U	7.2 U	2.9 U	2.7 U	74000 D	5600 D
n-octane	111-65-9	200000	100000	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	17000 D	1500 D
n-Propylbenzene	103-65-1	8000	4000	ug/kg	2.6 U	4000 D	5 U	1.4 U	2.9 U	2.7 U	9700 D	660 D
n-undecane	1120-21-4	200000	100000	ug/kg	2.6 U	8900 D	10	2.1 U	2.9 U	2.7 U	26000 D	6600 D
o-Xylene	95-47-6	3200	1600	ug/kg	2.6 U	2500 JD	5.2 U	1.4 U	2.9 U	2.7 U	10000 D	710 D
p- & m- Xylenes	179601-23-1	3200	1600	ug/kg	5.2 U	4500 JD	10 U	2.9 U	5.7 U	5.4 U	13000 D	860 JD
p-Diethylbenzene	105-05-5	52000	26000	ug/kg	2.6 U	23000 D	5 U	2.9 U	2.9 U	2.7 U	31000 D	2900 D
p-Ethyltoluene	622-96-8	9000	4500	ug/kg	2.6 U	21000 D	5 U	2.9 U	2.9 U	2.7 U	41000 D	2300 D
p-Isopropyltoluene	99-87-6	22000	11000	ug/kg	2.6 U	5000 D	5 U	0.26 U	2.9 U	2.7 U	7200 D	580 JD
sec-Butylbenzene	135-98-8	12000	5900	ug/kg	2.6 U	3300 D	5 U	1.4 U	2.9 U	2.7 U	7200 D	610 D
Styrene	100-42-5	9200	4600	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
tert-Amyl methyl ether (TAME)	994-05-8	4000	2000	ug/kg	4.2 U	2200 U	8 U	2.9 U	4.6 U	4.3 U	670 U	480 U
tert-Butylbenzene	98-06-6	12000	5900	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Tetrachloroethylene	127-18-4	2600	1300	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Tetrahydrofuran	109-99-9	2200	1100	ug/kg	5.2 U	2800 U	10 U	5.7 U	5.7 U	5.4 U	840 U	610 U
Toluene	108-88-3	3000	1500	ug/kg	2.6 U	2300 JD	5 U	1.4 U	2.9 U	2.7 U	1200 D	540 JD
trans-1,2-Dichloroethylene	156-60-5	400	200	ug/kg	2.6 U	1400 U	5 U	2.1 U	2.9 U	2.7 U	420 U	300 U
trans-1,3-Dichloropropylene	10061-02-6	100	50	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
trans-decahydronaphthalene	493-02-7	200000	100000	ug/kg	2.6 U	8000 D	5 U	7.2 U	2.9 U	2.7 U	13000 D	5200 D
Trichloroethylene	79-01-6	1000	500	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Trichlorofluoromethane	75-69-4	1600	800	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
Vinyl acetate	108-05-4	600	300	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Vinyl Chloride	75-01-4											

Table 2
Soil Sample Analytical Results - SVOCs
Former BOMARC Site

LOCATION LAB SAMPLE ID SAMPLE DATE	CAS Number	SCDHS Action Level	SCDHS Cleanup Objective	Units	S-2 22L1187-05 12/21/2022	S-3 22L1187-04 12/21/2022	S-16 22L1187-01 12/21/2022	S-16A (0-6") L2316688-01 3/30/2023	S-17 DW 22L1187-02 12/21/2022	S-18 22L1187-03 12/21/2022	FP001_9ft 22L1175-01 12/20/2022	FP002_8ft 22L1175-02 12/20/2022
Semi-Volatile Organic Compounds												
Acenaphthene	83-32-9	200000	98000	ug/kg	46.2 U	99.6 U	678 D	34 J	227 U	47.3 U	77.6 U	64.2 U
Anthracene	120-12-7	200000	100000	ug/kg	83.3 JD	808 D	1310 D	40 J	293 JD	47.3 U	77.6 U	64.2 U
Benzo(a)anthracene	56-55-3	2000	1000	ug/kg	453 D	567 D	2860 D	120	2270 D	47.3 U	77.6 U	64.2 U
Benzo(a)pyrene	50-32-8	44000	22000	ug/kg	314 D	243 D	1640 D	140 J	1970 D	47.3 U	77.6 U	64.2 U
Benzo(b)fluoranthene	205-99-2	3400	1700	ug/kg	332 D	233 D	1730 D	200	1930 D	47.3 U	77.6 U	69.6 JD
Benzo(g,h,i)perylene	191-24-2	200000	100000	ug/kg	280 D	99.6 U	1360 D	83 J	1210 D	47.3 U	77.6 U	64.2 U
Benzo(k)fluoranthene	207-08-9	3400	1700	ug/kg	268 D	138 JD	1490 D	68 J	1720 D	47.3 U	77.6 U	64.2 U
Chrysene	218-01-9	2000	1000	ug/kg	522 D	718 D	3090 D	150	2300 D	47.3 U	77.6 U	67.6 JD
Dibenzo(a,h)anthracene	53-70-3	200000	100000	ug/kg	48.6 JD	99.6 U	388 JD	25 J	227 U	47.3 U	77.6 U	64.2 U
Fluoranthene	206-44-0	200000	100000	ug/kg	972 D	99.6 U	7120 D	360	2610 D	50.6 JD	77.6 U	136 D
Fluorene	86-73-7	200000	100000	ug/kg	46.2 U	1660 D	759 D	30 J	227 U	47.3 U	472 D	74.8 JD
Indeno(1,2,3-cd)pyrene	193-39-5	16000	8000	ug/kg	359 D	99.6 U	1610 D	98 J	1630 D	47.3 U	77.6 U	64.2 U
Phenanthrene	85-01-8	200000	100000	ug/kg	443 D	4450 D	6800 D	320	763 D	47.3 U	172 D	112 JD
Pyrene	129-00-0	200000	100000	ug/kg	1100 D	2250 D	7210 D	280	3200 D	47.6 JD	77.6 U	86 JD

Notes:
SCDHS Action Levels & Cleanup Objectives, SOP 9-95 Pumpout and Soil Cleanup Criteria, 8/2010
NS - No Standard
** - The Action Level for acetone will be determined on a case by case basis
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
D - Result is from an analysis that required a dilution
Yellow highlighted text denotes concentrations exceeding SCDHS Cleanup Objective
Orange highlighted text denotes concentrations exceeding SCDHS Acton Level

Table 3
Soil Sample Analytical Results - Metals
Former BOMARC Site

LOCATION LAB SAMPLE ID SAMPLE DATE	CAS Number	SCDHS Action Level	SCDHS Cleanup Objective	Units	S-2 22L1187-05 12/21/2022	S-3 22L1187-04 12/21/2022	S-16 22L1187-01 12/21/2022	S-16A (0-6") L2316688-01 3/30/2023	S-17 DW 22L1187-02 12/21/2022	S-18 22L1187-03 12/21/2022	FP001_9ft 22L1175-01 12/20/2022	FP002_8ft 22L1175-02 12/20/2022
Total Metals												
Arsenic	7440-38-2	30	6	mg/kg	1.39 U	2.99 U	27.8	3.73	2.6	1.96	12.5	26.3
Barium	7440-39-3	4000	820	mg/kg	10.8	158	235	13.4	6.91	14.5	4360	6210
Beryllium	7440-41-7	240	47	mg/kg	0.1	0.1 U	0.141	0.105 J	0.089	0.193	0.173	0.293
Cadmium	7440-43-9	40	7.5	mg/kg	0.277 U	8.28	31.7	0.112 J	0.272 U	0.633	0.469 U	1.53
Chromium	7440-47-3	100	20	mg/kg	4.54	158	178	3.89	9.52	32.7	64.3	109
Copper	7440-50-8	8500	1700	mg/kg	10.5	761	305	5.47	22.6	18.9	7120	2890
Lead	7439-92-1	2000	450	mg/kg	18.5	145	4860	36.4	12.2	328	4920	843
Mercury	7439-97-6	3.7	0.7	mg/kg	0.0333 U	1.92	9.21	0.078 U	0.0326 U	0.0472	0.135	0.107
Nickel	7440-02-0	650	130	mg/kg	3.35	24.5	114	2.22	2.27	6.84	19.8	22.1
Selenium	7782-49-2	NS	NS	mg/kg	2.31 U	4.98 U	2.83 U	0.87 U	2.27 U	2.38 U	3.91 U	3.25 U
Silver	7440-22-4	50	10	mg/kg	0.462 U	5.15	0.567 U	0.217 U	0.453 U	0.477 U	0.782 U	0.651 U

Notes:
SCDHS Action Levels & Cleanup Objectives, SOP 9-95 Pumpout and Soil Cleanup Criteria, 8/2010
NS - No Standard
** - The Action Level for acetone will be determined on a case by case basis
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
D - Result is from an analysis that required a dilution
Yellow highlighted text denotes concentrations exceeding SCDHS Cleanup Objective
Orange highlighted text denotes concentrations exceeding SCDHS Acton Level

Table 4
Soil Sample Analytical Results - PCBs
Former BOMARC Site

LOCATION	CAS Number	NYSDEC	Units	S-2	S-3	S-16	S-16A (0-6")	S-16A (6-12")	S-17 DW	S-18	FP001_9ft	FP002_8ft
LAB SAMPLE ID		UUSCO		22L1187-05	22L1187-04	22L1187-01	L2316688-01	L2316688-02	22L1187-02	22L1187-03	22L1175-01	22L1175-02
SAMPLE DATE				12/21/2022	12/21/2022	12/21/2022	3/30/2023	3/30/2023	12/21/2022	12/21/2022	12/20/2022	12/20/2022
Polychlorinated Biphenyls												
Aroclor 1016	12674-11-2	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1221	11104-28-2	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1232	11141-16-5	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1242	53469-21-9	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1248	12672-29-6	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1254	11097-69-1	0.1	mg/kg	0.0182 U	0.285	326 D	0.525	0.512	0.531	NA	0.0305 U	0.0254 U
Aroclor 1260	11096-82-5	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Total PCBs	1336-36-3	0.1	mg/kg	0.0182 U	0.285	326 D	0.525	0.512	0.531	NA	0.0305 U	0.0254 U

Notes:
NYSDEC Unrestricted Use Soil Cleanup Objective, 6 NYCRR Part 375 - Environmental Remediation Programs, 12/2006
NS - No Standard
NA - Not Analyzed
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
D - Result is from an analysis that required a dilution
Orange highlighted text denotes concentrations exceeding NYSDEC UUSCO



APPENDIX A

IRM WORK PLAN



BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
NYSDEC SITE: 152262

UNDERGROUND INJECTION CONTROL INTERIM REMEDIAL MEASURE WORK PLAN

SUBMITTED TO:



New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau A, Section C
625 Broadway
Albany, New York 12233

PREPARED FOR:



Suffolk County Department of Health Services
Office of Pollution Control
15 Horseblock Place
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PREPARED BY:



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PWGC Project Number: SHD2201

AUGUST 2022



UNDERGROUND INJECTION CONTROL INTERIM REMEDIAL MEASURE WORK PLAN BOMARC SITE

100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK

SUBMITTED:
August 2022

PREPARED FOR:
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Remedial Bureau A, Section C
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**UIC INTERIM REMEDIAL MEASURE WORK PLAN
BOMARC SITE
WESTHAMPTON, NEW YORK**

TABLE OF CONTENTS		PAGE
1.0	INTRODUCTION	1
1.1	Site Description	1
1.2	Site History	2
1.3	Previous Investigations	2
1.3.1	PWGC UIC Structure Sampling and Remediation (January 2014)	2
1.3.2	BOMARC UIC Data Summary and UIC Remedial Cost Estimate (August 12, 2021).....	3
1.4	Regional Geology/Hydrogeology	4
1.5	Site Features.....	4
1.6	Current and Future Site Use.....	5
2.0	DESCRIPTION OF INTERIM REMEDIAL ACTION	6
2.1	Geophysical Investigation	6
2.1.1	Electromagnetic Survey.....	6
2.1.2	Ground Penetrating Radar Survey.....	7
2.2	Additional Characterization of UIC Structures	8
2.3	Investigation of the Former Burn Pits	8
2.4	Waste Characterization Sampling	9
2.5	Self-Implementing Cleanup Plan	9
2.6	Remedial Activities.....	10
2.6.1	UIC Structures.....	10
2.6.2	Floor Drains	10
2.6.3	Former Fireworks Burn Pits	10
2.6.4	Verification Sampling.....	10
2.6.5	Waste Disposal	11
2.7	Reporting.....	11
2.7.1	IRM Completion Report.....	11
3.0	ENGINEERING SPECIFICATIONS AND CONTROLS	12
3.1	Engineering Specifications	12
3.1.1	Mobilization and Site Preparation.....	12
3.1.2	Soil Stockpile Area Construction and Maintenance	12
3.1.3	Soil/Sludge/Sediment Disposal.....	12
3.1.4	Liquid Disposal.....	13
3.1.5	Backfill and Site Restoration.....	13
3.1.6	Demobilization.....	13
3.2	Engineering Controls.....	13
3.2.1	Dust Suppression	13
3.2.2	Odor Control.....	14
3.2.3	Sediment and Erosion Control.....	14
4.0	MONITORING AND MAINTENANCE	15

4.1	Construction Phase Monitoring	15
4.2	Waste Characterization.....	15
5.0	QUALITY ASSURANCE PROJECT PLAN	16
5.1	Laboratory Analysis.....	16
5.1.1	Soil Samples.....	17
5.2	Field/Laboratory Data Control Requirements	17
5.3	Sample Identification	18
5.4	Chain-of-Custody, Sample Packaging and Shipment	18
5.5	Data Usability and Validation.....	18
5.5.1	Data Usability and Validation Requirements	19
5.5.2	Data Usability and Validation Methods.....	19
5.6	Field Equipment Calibration.....	19
5.7	Equipment Decontamination.....	19
5.7.1	General Procedures	20
5.7.2	Sampling Equipment.....	20
5.7.3	Meters and Probes	20
5.8	Field Documentation.....	20
6.0	HEALTH AND SAFETY PLAN	22
7.0	COMMUNITY AIR MONITORING PLAN.....	23
8.0	REFERENCES	24

FIGURES

Figure 1	Site Location
Figure 2	Site Plan

APPENDICES

Appendix A	Health and Safety Plan
Appendix B	Community Air Monitoring Plan



CERTIFICATION

I, Bryan Grogan, certify that I am currently a NYS registered professional engineer, as defined in 6 NYCRR Part 375, and that this Interim Remedial Measure was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Bryan Grogan, PE

PE Name

Bryan Grogan

PE Signature

092523

PE License #

8/4/2022

Date





1.0 INTRODUCTION

This Underground Injection Control (UIC) Interim Remedial Measure (IRM) Work Plan has been prepared by P.W. Grosser Consulting Inc. (PWGC), on behalf of the Suffolk County Department of Health Services (SCDHS), to document the proposed IRM activities planned at the BOMARC Site (Site) located at 100 Old Country Road, Westhampton, New York. A Site Location Map is included as **Figure 1** and a Site Plan is included as **Figure 2**.

An underground injection control (UIC) investigation, performed by the SCDHS from 2019 through 2021, identified seven UIC structures with concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals and/or polychlorinated biphenyls (PCBs) in contravention of their respective regulatory standards. This IRM is not intended to be considered the final remedy for the site but is being undertaken to remove known contaminated sediments from the on-site drainage systems, septic systems, and former fireworks burn pits, in order to minimize additional impacts to onsite soils and provide protection to the public and environment.

1.1 Site Description

The Site is located at 100 Old Country Road, in the hamlet of Westhampton, New York. The Site is in the Town of Southampton, Suffolk County. The property is identified in the Suffolk County Tax Map as: 0900-331.00-01.00-Lot Nos. 001.100, and 002.000 through 015.000.

The Site measures approximately 186 acres in size and is located to the north of Old Country Road and west of Old Westhampton Road. The property includes 56 structures which originally housed BOMARC missiles, along with other structures utilized by Suffolk County. Large parking lots are also present at the site along with a police firing range. The Site is bounded to the north by undeveloped pine barrens, to the east by commercial/industrial land uses, to the south by Old Country Road, and to the west by recent residential development.

A Vicinity Map is included as **Figure 1**. A Site Plan is included as **Figure 2**.



1.2 Site History

The former BOMARC Missile Base was operated by the US Air Force as one of 10 BOMARC facilities protecting the east coast from a potential Soviet air attack from 1959 until it was decommissioned in 1964. Fifty-six nuclear-tipped missiles were located at this facility which utilized tritium and required frequent maintenance (every 90 days). After decommissioning, the property was turned over to Suffolk County as surplus property in the 1960s.

1.3 Previous Investigations

The following investigations pertinent to this UIC IRM Work Plan were performed at the Site to determine if past activities had impacted the sediment within onsite UIC structures. Results of these Site investigations confirmed the presence of VOCs, SVOCs, metals and PCBs above the SCDHS Action Levels and/or New York State Department of Environmental Conservation (NYSDEC) Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs) standards in sediments within UIC structures, requiring remediation at the Site.

1.3.1 PWGC UIC Structure Sampling and Remediation (January 2014)

During the Suffolk County Department of Public Works (SCDPW) UIC Maintenance Program, PWGC investigated the BOMARC property and identified several structures associated with the sitewide sanitary system, as well as several floor drains within the buildings on the property. Each of the accessible UIC structures were sampled in accordance with the SCDHS Standard Operating Procedure (SOP) 9-95 and analyzed for VOCs, SVOCs and metals. Two structures, UIC001 (primary cesspool of the sitewide sanitary system) and UIC004 (Building C0205 floor drain) exhibited levels of SVOCs and/or metals above SCDHS Action Levels.

The sitewide sanitary system consists of the primary cesspool, a septic tank, six junction boxes and three subsurface secondary cesspools located southwest of the primary cesspool. Correspondence between PWGC, SCDHS, and SCDPW personnel concluded that the sitewide sanitary system, due to its elevated levels of chromium (370 mg/kg) in the primary cesspool, should be remediated. In addition, SCDHS indicated that the floor drain located in Building C0205 should be remediated prior to abandonment.

Remediation of the sitewide sanitary system was performed in March 2014. Remedial effort included the following:

- Removal of impacted sediment from six solid bottom junction boxes throughout the site.
- Characterization samples collected from three overflow cesspools associated with the sitewide sanitary system. No impact above SCDHS Action Levels detected.
- Removal of impacted sediment from building C0205 floor drain.
- March 2014 remediation was scheduled to include the sitewide sanitary system septic tank and primary cesspool; however, this was not completed at that time due to a water leak.

1.3.2 BOMARC UIC Data Summary and UIC Remedial Cost Estimate (August 12, 2021)

The SCDHS, under the directive of Resolution 1065-2018 of the Suffolk County Legislature, performed a limited site evaluation at the Site. A total of 25 locations were deemed areas of concern (AOC) based upon a walk-through and a review of historic information from department records. Impacts to UIC structures included presence of VOCs, SVOCs, heavy metals and polychlorinated biphenyls (PCBs) in contravention of SCDHS Action Levels and/or NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) in seven UIC structures and/or discharge points. As there are no cleanup criteria for PCBs in the SCDHS SOP 9-95, PCB results were compared to NYSDEC UUSCOs. The presence of PCBs, and possibly other contaminants, may be indicative of legacy impacts occurring prior to Suffolk County ownership.

Summary of UIC Data for UICs Requiring Remediation

Structure ID	Description	Sample Date	Suffolk County SOP-9-95 Exceedance			UUSCOs Exceedance for PCBs?	Total PCBs (ppb)	NYSDEC UUSCO
			VOCs	SVOCs	Metals			
S-2	Storm Drain	4/30/19	No	No	No	Yes	4,300	100
S-3	Septic Tank	4/30/19	Yes	No	No	Yes	598	100
S-16	Floor Drain	5/1/19	Yes	Yes	Yes	Yes	593,000	100
S-17	Floor Drain	5/1/19	No	Yes	Yes	Yes	9,560,000	100
S-17OF	Floor Drain Discharge Point	3/23/21	No	No	No	Yes	1,590	100
S-18	Floor Drain	5/1/19	No	No	No	Yes	7,110	100
S-22	Former Burn Pits	5/1/19	Yes	No	Yes	Yes	6,070	100

1.4 Regional Geology/Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The Raritan clay is a solid and silty clay with that is gray, red or white in color with few lenses of sand and gravel and abundant lignite and pyrite.

Above the Raritan Clay lies the Magothy Formation. The Magothy aquifer consists of layers of fine to coarse sand of moderate to high permeability, with inter-bedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow. Therefore, this aquifer generally becomes more confined with depth. The Magothy Formation is overlain by the Upper Glacial deposits which contains the Upper Glacial aquifer. The Upper Glacial aquifer is the water-table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the water table to the top of the Magothy and, therefore, is hydraulically connected to the Magothy aquifer.

The aquifer of concern at the former BOMARC site is the Upper Glacial aquifer which is an unconsolidated mixture of sand and gravel. The Upper Glacial aquifer is approximately 100 feet thick (saturated zone) at the site, and has an estimated average horizontal hydraulic conductivity (permeability) of 270 feet/day and a vertical hydraulic conductivity of 27 feet/day (Franke & Cohen, 1972).

Clay layers, such as the Gardiners clay and the “20-Foot-clay,” where present, may act as local confining units, separating the Upper Glacial aquifer from the underlying Magothy aquifer which is the principal source of drinking water in Suffolk County. These clay layers extend throughout much of the south shore of Long Island and are likely present just south of the site.

1.5 Site Features

The project site elevation is approximately 50 feet above mean sea level and is generally level, with the exception of several earthen berms at the northern end of the property associated with the police firing range. The site is



developed with multiple warehouse and office buildings used by Suffolk County, 56 former BOMARC missile bunkers currently used for storage, and a police firing range. There are multiple unpaved parking areas throughout the property used as vehicle impound lots by Suffolk County

1.6 Current and Future Site Use

The site is currently utilized by Suffolk County as a police training facility/firing range, police impound lot, and county storage area. Significant changes in use of the site are not planned for the near future.



2.0 DESCRIPTION OF INTERIM REMEDIAL ACTION

Based upon the findings of the 2021 SCDHS UIC investigation, impacted soil/sediment is present within multiple UIC structures present at the subject property (see Section 1.3.2). This impact will be addressed through implementation of this IRM to provide protection to the public and environment.

On March 23, 2022, PWGC and SCDHS performed an inspection of the Site to identify the impacted UIC structures, as well as additional UIC structures that may require further evaluation.

Based on previous investigations and site reconnaissance, the IRM will consist of:

- Geophysical survey to identify potential UIC structures that have not yet been characterized.
- Collection of characterization samples from additional UIC structures identified by the geophysical survey (as needed).
- Investigation and remediation of former fireworks burn pits.
- Collection of waste characterization samples.
- Submittal of a Self-Implementing Cleanup Plan to the USEPA for the disposal of PCB wastes.
- Removal of impacted sediment and liquids from impacted UIC structures.
- Proper off-site disposal of the removed liquids and sediment.
- Preparation of a IRM Completion Report.

2.1 Geophysical Investigation

In order to evaluate whether additional UIC structures are present at the site and attempt to confirm discharge points of identified floor drains (e.g., S-16 and S-17), a geophysical investigation will be performed where accessible.

2.1.1 Electromagnetic Survey

The electromagnetic (EM) method uses the principle of electromagnetic induction to measure the variability of electrical conductivity of subsurface materials and the presence of buried metal objects. Significant contrasts in the electrical properties between non-indigenous materials and surrounding soil enable accurate delineation of buried waste materials, fill, and air spaces. The large EM response to metal makes this technique particularly



well suited to identifying buried metal objects such as underground storage tanks (USTs), metallic wastes, buried drums, pipelines, reinforced building foundations, or other metal components of buried structures.

A Geonics EM-61 high-resolution time domain metal detector, or equivalent, will be used to conduct the first phase of the investigation. The EM-61 is used to detect both ferrous and non-ferrous metals buried in the upper 10 feet of the subsurface. A powerful transmitter generates a pulsed primary magnetic field, which induces eddy currents in nearby metal objects. The decay of these currents is measured by upper and lower receiver coils mounted in the coil assembly. The responses are recorded and displayed by an integrated data logger as two-channel information. The bottom channel is more sensitive to metallic objects in the shallow (upper few feet) subsurface, and the differential response is more sensitive to metal objects from 3 to 10 feet below ground surface. The EM-61 can detect a single 55-gallon drum at a depth of more than 10 feet beneath the instrument, yet it is relatively insensitive to interference from nearby surface metal such as fencing, buildings, and automobiles. The instrument is pulled along the ground surface by a single operator, and measurements are collected at desired intervals along the ground surface. The terrain at the site may limit the areas where the EM-61 survey can be completed.

A survey of the area will also be performed using a hand held split-box metal detector (Fisher Model TW-6, or equivalent). The TW-6 is a split-box electromagnetic metal detector that is very sensitive to near surface ferrous metal objects and is very useful in detecting the surface expression of subsurface ferrous objects. This instrument is commonly used to identify buried storage tanks and other metallic objects.

Anomalies detected during the EM surveys will be marked on the ground and further investigated using ground-penetrating radar (GPR).

2.1.2 Ground Penetrating Radar Survey

The GPR survey will be performed in areas of anomalies detected by the EM survey. The GPR method is based upon the transmission of repetitive, radio-frequency electromagnetic (EM) pulses into the subsurface. When the transmitted energy of down-going wave contacts an interface of dissimilar electrical character, part of the energy is returned to the surface in the form of a reflected signal. This reflected signal is detected by a receiving transducer and is displayed on the screen of the GPR unit as well as being recorded on the internal hard-drive.

The received GPR response remains constant as long as the electrical contrast between media is present and constant. Lateral or vertical changes in the electrical properties of the subsurface result in equivalent changes in the GPR responses. The system records a continuous image of the subsurface by plotting two-way travel time of the reflected EM pulse versus distance traveled along the ground surface. Two-way travel time values are then converted to depth using known soil velocity functions. Each radar profile will be examined for characteristic GPR signatures that may indicate the presence of buried targets.

Following the geophysical survey, characterization samples will be collected from additional UIC structures and/or floor drain discharge points identified during the survey (as needed).

2.2 Additional Characterization of UIC Structures

Additional UIC structures identified during the geophysical survey that are connected to structures previously identified as impacted and have not been previously sampled by SCDHS OPC, will be characterized in accordance with SCDHS UIC Program procedures. Samples will be collected using a properly decontaminated stainless-steel hand auger and analyzed as follows:

- VOCs by USEPA Method 8260 (SCDHS List)
- SVOCs by USEPA Method 8270 (SCDHS List)
- Metals by USEPA Method 6010/7471 (SCDHS List)
- PCBs by USEPA Method 8082

2.3 Investigation of the Former Burn Pits

Two former concrete fireworks burn pits (~10-feet x 10 feet x 10 feet) were situated on the northwestern portion of the property. The burn pits were utilized to dispose of illegal fireworks in a safe manner. The Suffolk County Department of Public Works (SCDPW) reportedly removed the burn pits and backfilled the area. However, it is unknown if the concrete bottom was removed and if any subsurface impacts were identified. An investigation to determine the location and condition of the former fireworks burn pits will be performed utilizing an excavator (or similar).



Potentially impacted soils (e.g., exhibiting staining or olfactory evidence of impact) encountered during investigation of the fireworks burn pits will be stockpiled in accordance with the methodology specified in Section 3.1.2 for characterization and offsite disposal (as needed).

Characterization samples will be collected from beneath each of the former fireworks burn pits to evaluate whether impact is present and additional soil removal is necessary. Samples will be collected using a properly decontaminated stainless-steel hand auger and analyzed as follows:

- VOCs by USEPA Method 8260 (SCDHS List)
- SVOCs by USEPA Method 8270 (SCDHS List)
- Metals by USEPA Method 6010/7471 (SCDHS List)
- PCBs by USEPA Method 8082

2.4 Waste Characterization Sampling

Waste characterization will be performed by collecting soil/sediment and/or liquid samples from UIC structures containing impact exceeding SCDHS Action Levels and/or NYSDEC UUSCOs (for PCBs). Sample analysis will be as specified by the requirements of the disposal facility's (to be determined) waste acceptance criteria. After the results of the analysis are complete, the remediation contractor will prepare the necessary forms for submittal to the waste disposal/treatment facility. Forms will then be submitted to the waste disposal facility for evaluation and final approval. Analysis for waste characterization will be provided in a results-only format.

Copies of waste characterization results and waste profiles submitted to the selected disposal facility(ies), as well as waste approvals will be provided to NYSDEC for review prior to the start of remedial activities.

2.5 Self-Implementing Cleanup Plan

Following completion of additional characterization sampling and waste characterization sampling as described in Sections 2.2, 2.3 and 2.4, a Self-Implementing Cleanup Plan (SICP) will be prepared in accordance with Title 40 of the Code of Federal Regulations (40 CFR) Part 761.61. The SICP will detail the proposed cleanup, disposal requirements and verification sampling required to document remediation of PCB impacted wastes. In accordance with 40 CFR Part 761.61, the SICP will be submitted to USEPA at least 30 calendar days prior to the start of cleanup activities.

2.6 Remedial Activities

2.6.1 UIC Structures

Remediation of UIC structures will include the removal of impacted sludge/sediment from the base of impacted structures until visibly clean, native material is encountered, until additional sediment removal is limited by access and/or structural concerns, or a solid bottom is encountered. Standing liquids, if present will be removed utilizing a pump truck prior to sludge/sediment removal.

2.6.2 Floor Drains

The concrete slab will be saw cut around the floor drains in order to remove subsurface soil. Remediated soil will be remediated via hand tools and/or guzzler and properly staged onsite in 55-gallon drums and/or stockpiled in accordance with the methodology specified in Section 3.1.2 in preparation of waste characterization sampling and offsite disposal.

2.6.3 Former Fireworks Burn Pits

In the event that investigation of the former fireworks burn pits identifies impact exceeding regulatory standards beneath the pits, impacted soils will be removed utilizing an excavator (or similar) until acceptable confirmatory endpoint samples (see Section 2.6.4) are obtained. Impacted soils will be stockpiled in accordance with the methodology specified in Section 3.1.2. in preparation of waste characterization sampling and offsite disposal.

2.6.4 Verification Sampling

Following completion of remedial activities, confirmatory endpoint samples to verify the effectiveness of remediation will be collected as follows:

- UIC structures – one three-point composite sample from the base of the remediated structure. Solid bottom (non-leaching) UIC structures will not require confirmatory sampling.
- Floor drains – one grab sample from the base of each floor drain excavation.
- Former fireworks burn pits – one bottom sample per 900 square feet of bottom area, and one sample from the base of each sidewall.

Verification sample analysis will be limited to the suite of analytes that exceeded regulatory standards prior to remediation.



2.6.5 Waste Disposal

Contaminated soil, sludge/sediment, and liquids will be transported off-site to a permitted facility(ies) for disposal in accordance with local, state, and federal regulations. If liquids are present within the structures to be remediated, they will be removed and disposed of prior to soil/sediment disposal (as necessary).

Offsite transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

2.7 Reporting

2.7.1 IRM Completion Report

An IRM Completion Report will be prepared and submitted to the NYSDEC following completion of remedial activities. The Report will detail:

- Summary of previous investigations and findings.
- Summary of IRM and findings.
- Description of Remedial Action Performed.
- Laboratory data for characterization samples, waste characterization and endpoint samples.
- Copies of waste approvals and waste manifests.



3.0 ENGINEERING SPECIFICATIONS AND CONTROLS

3.1 Engineering Specifications

3.1.1 Mobilization and Site Preparation

Mobilization will include the delivery of equipment and materials to the site. Site workers will receive site orientation and training in accordance with the site-specific Health and Safety Plan, Community Air Monitoring Plan and established policies and procedures to be followed during the implementation of the Interim Remedial Measure. The remediation contractor and all associated subcontractors will each receive a copy of the IRM Work Plan, Site Specific HASP and CAMP and will be briefed on their contents.

Site security will be maintained by utilizing construction and/or safety fencing around open excavations (as needed) and the existing facility perimeter fence.

3.1.2 Soil Stockpile Area Construction and Maintenance

In the event that excavated soils will be stockpiled on site prior to disposal, stockpiles will be confined to a designated area (to be determined). The preferred method for storing soils on site will be in roll-off containers, covered with polyethylene sheeting, and/or DOT approved 55-gallon drums. Should it be necessary to stockpile soils on the ground, the stockpile area will be lined with 20-mil polyethylene sheeting and surrounded by a silt fence. Stockpiled material will be covered with 20-mil polyethylene sheeting and secured until it is removed from the site.

3.1.3 Soil/Sludge/Sediment Disposal

Excavated soil/sludge/sediment will be sampled in accordance with the procedures described under Section 2.4 of this document to meet the waste acceptance criteria of the disposal facility. Impacted material sediment to be removed from the site will be transported in one of the following:

- Guzzler truck
- Roll off container
- Dump truck/dump trailer
- 55-gallon drums.

Loading will be performed with a back-hoe, excavator, or other appropriate equipment. Loaded containers will be covered with a tarp.

3.1.4 Liquid Disposal

Liquids pumped from UIC structures, if present, will be sampled in accordance with the procedures described under Section 2.4 of this document to meet the waste acceptance criteria of the disposal facility. During remedial activities, liquid wastes will be pumped directly into a tanker truck (or equivalent) for transport to the disposal facility.

3.1.5 Backfill and Site Restoration

Following removal of impacted soils, excavated areas will be backfilled with clean fill, as needed. Clean fill, as defined by 6NYCRR Part 360, may be brought in from off-site to backfill the excavations and will be in compliance with Section 5.4(e) of the Division of Environmental Remediation's *Draft DER-10 – Technical Guidance for Site Investigation and Remediation* (December 2010). The NYSDEC will be consulted, and must approve in advance, the return of excavated soil and the use of off-site fill.

3.1.6 Demobilization

Following the completion of interim remedial activities at the site, equipment and remedial structures will be dismantled and removed from the site. Solid wastes generated during IRM activities (i.e., polyethylene sheeting) will be properly disposed of.

3.2 Engineering Controls

3.2.1 Dust Suppression

Dust generation from IRM activities will be monitored as described under Section 4.0. If dust generation approaches action levels, suppression will be accomplished by one or more of the following:

- Covering/capping exposed soil area with mulch, rubber mats, etc.
- Wetting equipment and excavations;
- Water spray dust suppression;
- Hauling materials in properly covered containers; and,
- Restricting vehicle speeds to 10 mph.



Atomizing sprays will be used to prevent overly wet conditions, conserve water, and offer an effective means of suppressing fugitive dust. Whenever possible, impacted soils will be loaded directly into trucks for immediate off-site disposal.

3.2.2 Odor Control

In the event that odor suppression becomes necessary, techniques to be implemented for control of odors from stockpiled soil or from the open excavation will include one or more of the following:

- Cover stockpiled/exposed contaminated soil with plastic sheeting and/or tarps.
- Limit working hours to favorable wind and temperature conditions

3.2.3 Sediment and Erosion Control

Erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff will be placed to protect the excavation work and adjacent areas during excavation activities, if necessary. Storm water control measures, such as straw hay bales or silt fence, will be utilized during excavation activities to prevent storm water runoff from impacting excavation areas and soil stockpiles.

Straw bales and/or silt fence may be placed at locations up gradient of excavation areas to minimize water flow and soil from entering excavations, and down gradient of excavation areas, where possible, to prevent soil from the excavations from migrating to other areas of the site.



4.0 MONITORING AND MAINTENANCE

4.1 Construction Phase Monitoring

Monitoring during sediment removal will be performed to protect the health of site workers and the surrounding community. A Health and Safety Plan (HASP) has been developed for this project. This plan specifies the monitoring procedures, action levels, and contingency measures that are required to protect public health and site workers. In addition, a community air monitoring will be performed in accordance with the NYSDOH Generic Community Air Monitoring Plan (CAMP) specified in Appendix 1A of Division of Environmental Remediation's *Draft DER-10 – Technical Guidance for Site Investigation and Remediation* (December 2010). Generally, air monitoring would include real-time measurement of volatile emissions and dust levels.

4.2 Waste Characterization

Waste characterization will be performed by collecting samples of sediment and liquid removed during the IRM as specified in Section 2.4. Sample analysis will be as specified by the requirements of the disposal facility's (to be determined) waste acceptance criteria.

Copies of waste characterization results and waste profiles submitted to the selected disposal facility(ies), as well as waste approvals will be provided to NYSDEC for review prior to the start of remedial activities.

5.0 QUALITY ASSURANCE PROJECT PLAN

This Quality Assurance Project Plan (QAPP) presents the objectives, functional activities, methods, and QA/QC requirements associated with sample collection and laboratory analysis for characterization activities. The QAPP follows requirements detailed in DER-10, Section 2.

5.1 Laboratory Analysis

Requirements for sample analysis are described below. All samples will be submitted to a NYSDOH ELAP certified laboratory (Alpha Analytical) for analysis. Analytical methods, preservation, container requirements, and holding times are summarized below:

ANALYTICAL METHODS (SOIL)

Analyte/ Analyte Group	Matrix	Method/ SOP	Container(s) (number, size & type per sample)	Preservation	Preparation Holding Time	Analytical Holding Time	Estimated Number of Samples to be Collected
TAL Metals	Soil	EPA 6010C	1 x 2 oz, glass	Metals ex	6 months	6 months	10 to 12
TCL VOCs	Soil	EPA 8260C	3 x 40 ml VOA, glass vial	1 x Methanol 2 x DI H ₂ O Cool ≤ 6 °C	48 hours	14 Days	23 to 31
TCL SVOCs	Soil	EPA 8270D	1 x 8 oz, glass	Cool ≤ 6 °C	14 days	40 days	16 to 24
PCBs	Soil	EPA 8082A	1 x 8 oz, glass	Cool ≤ 6 °C	14 days	40 Days	10 to 12

5.1.1 Soil Samples

Characterization and confirmatory endpoint soil samples will be collected as described in Section 2.0. Analysis will conform to NYSDEC Analytical Services Protocol (ASP) Category B data deliverables in accordance with NYSDEC DER-10, Appendix 2B, 1.0 (b), including calibration standards, surrogate recoveries, and chromatograms.

Waste characterization sample analysis will conform to NYSDEC ASP Category A data deliverables, unless otherwise required by the disposal facility(ies).

5.2 Field/Laboratory Data Control Requirements

Quality Control (QC) procedures will be followed in the field and at the laboratory to facilitate that reliable data are obtained. When performing field sampling, care shall be taken to prevent the cross-contamination of sampling equipment, sample bottles, and other equipment that could compromise sample integrity. QC samples will include the following:

- Blind Duplicates – one per 20 environmental samples for each matrix sampled.
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) - one per 20 environmental samples for each matrix sampled.
- Equipment Blank – one per day for each matrix sampled.
- Trip Blank – one per day.

ESTIMATED QA/QC SAMPLE FREQUENCY

QA/QC Sample Type	Est. Total Soil Samples	Est. Days of Soil Sampling	Est. Total Soil QA/QC Samples
Blind Duplicate	7	1	1
MS/MSD	7	1	1
Equipment Blank	7	1	1
Trip Blank	7	1	1

QA/QC sample analysis will conform to NYSDEC ASP Category B data deliverables in accordance with NYSDEC DER-10, Appendix 2B, 1.0 (b), including calibration standards, surrogate recoveries, and chromatograms.

QA/QC sample analysis will not be performed on waste characterization samples unless otherwise required by the disposal facility(ies).

5.3 Sample Identification

Each sample will be identified with a set of information relating individual sample characteristics. Required information consists of Sample Designation, Depth, Date, Time, and Matrix. Examples of sample IDs are shown below.

- UIC001 – UIC Structure Sample

Sample frequency, locations, depths, and nomenclature may change subject to field decisions and professional judgment.

5.4 Chain-of-Custody, Sample Packaging and Shipment

Each day that samples are collected, a chain-of-custody/request for analysis form will be completed and submitted to the laboratory with samples to be analyzed. A copy of the chain-of-custody will be retained by the Project Manager. The chain-of-custody will include the project name, sampler's signature, sample IDs, date and time of sample collection, and analysis requested.

Samples will be packaged and shipped in a manner that maintains sample preservation requirements during transport (i.e., ice to keep samples cool until receipt at the laboratory), ensures that sample holding times can be achieved by the laboratory, and prevents samples from being tampered with.

If a commercial carrier ships samples, a bill of lading (waybill) will be used as documentation of sample custody. Receipts for bills of lading and other documentation of shipment shall be maintained as part of the permanent custody documentation. Commercial carriers are not required to sign the chain-of-custody as long as it is enclosed in the shipping container and evidence tape (custody seal) remains in place on the shipping container.

5.5 Data Usability and Validation

The main purpose of the data is for use in defining the extent of contamination at the site, to aid in evaluation of potential human health and ecological exposure assessments, and to support remedial action decisions. Based upon this, data usability and validation will be performed as described below. Complete data packages will be archived in the project files, and if deemed necessary additional validation can be performed using procedures in the following sections.

Data validation will not be performed on waste characterization samples unless otherwise required by the disposal facility(ies).

5.5.1 Data Usability and Validation Requirements

Data usability and validation are performed on analytical data sets, primarily to confirm that sampling and chain-of-custody documentation are complete, sample IDs can be tied to specific sampling locations, samples were analyzed within the required holding times, and analyses are reported in conformance with NYSDEC ASP, Category B data deliverable requirements as applicable to the method utilized.

5.5.2 Data Usability and Validation Methods

A designee of the PWGC Project Manager will complete a data usability evaluation for the data collected during the RI and a data usability summary report (DUSR) will be prepared. The DUSR will be prepared in accordance with NYSDEC DER-10, Appendix 2B.

Independent third-party data validation will be performed on 5% of the sample data, or on one sample from each sample delivery group (SDG), whichever is greater. Data validation will be performed by a qualified subcontractor independent of the project.

5.6 Field Equipment Calibration

Equipment will be inspected and approved by the Field Team Leader before being used. Equipment will be calibrated to factory specifications, if required. Monitoring equipment will be calibrated following manufacturers recommended schedules. Daily field response checks and calibrations will be performed as necessary (i.e. PID calibrations) following manufacturers standard operating procedures. Equipment calibrations will be documented in a designated field logbook.

5.7 Equipment Decontamination

In order to minimize the potential for cross-contamination, non-dedicated drilling and sampling equipment shall be properly decontaminated prior to and between sampling/drilling locations.

5.7.1 General Procedures

Drilling equipment will be decontaminated in a designated area. Sampling equipment and probes will be decontaminated in an area covered with plastic sheeting near the sampling location. Waste material generated during decontamination activities will be containerized, stored and disposed of in accordance with the procedures detailed in Section 5.9. Decontamination of sampling equipment shall be kept to a minimum, and wherever possible, dedicated sampling equipment shall be used. Personnel directly involved in equipment decontamination shall wear appropriate personal protective equipment (PPE).

5.7.2 Sampling Equipment

Sampling equipment (i.e., trowels, knives, split-spoons, bowls, hand augers, etc...) will be decontaminated prior to each use as follows:

- Laboratory-grade glassware detergent and tap water scrub to remove visual contamination
- Generous tap water rinse
- Distilled water rinse

5.7.3 Meters and Probes

All meters and probes that are used in the field (other than those used solely for air monitoring purposes, e.g., PID meters) will be decontaminated between uses as follows:

- Laboratory-grade detergent and tap water solution wash
- Tap water rinse
- Distilled water rinse (triple rinse)

5.8 Field Documentation

Documentation will take place on either appropriate forms or in a dedicated site logbook. Permanent black or blue ink will be used to record information in the logbook. Errors in field documentation will be lined through, initialed, dated, and corrected. Forms will be kept by the PWGC Field Team Leader during the field activities. Field activities will be documented in the field logbook. The logbook will contain waterproof pages that are consecutively numbered and be permanently bound with a hard cover. Upon completion of daily activities, unused portions of pages will be lined-through and initialed.



The primary purpose of the field logbook is to document the daily field activities and to provide descriptions of each activity. All entries in the field logbook will be recorded and dated by person making the entry.



6.0 HEALTH AND SAFETY PLAN

The Health and Safety Plan (HASP) takes into account the specific hazards inherent to the site and presents the minimum requirements which are to be met by PWGC, its subcontractors, and other on-site personnel in order to avoid and, if necessary, protect against health and/or safety hazards. A HASP has been prepared and is provided in **Appendix A**.

PWGC sub-contractors will have the option of adopting this HASP or developing their own site-specific document. If a subcontractor chooses to prepare their own HASP, it must meet the minimum requirements as detailed in the site HASP prepared by PWGC and must be made available to PWGC and NYSDEC.

Activities performed under the HASP will comply with applicable parts of OSHA Regulations, primarily 29 CFR Parts 1910 and 1926, and the PWGC Corporate Environmental Health and Safety policy. Modifications to the HASP may be made with the approval of the PWGC Health and Safety Manager (HSM) and/or Project Manager (PM).



7.0 COMMUNITY AIR MONITORING PLAN

Community air monitoring provides measures for protection of the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved in the remedial work) from potential airborne contaminant releases resulting from remedial activities.

Community air monitoring will be performed in accordance with the NYSDOH Generic Community Air Monitoring Plan (CAMP) specified in Appendix 1A of Division of Environmental Remediation's *Draft DER-10 – Technical Guidance for Site Investigation and Remediation* (December 2010). The action levels specified require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that the remedial work did not spread contamination off-site through the air.



8.0 REFERENCES

6 NYCRR Part 375 – Environmental Remediation Programs, December 2006

NYSDEC, Division of Environmental Restoration, May 2004, Draft Brownfield Program Cleanup Guide.

NYSDEC, Division of Environmental Restoration, December 2002, Draft DER-10, Technical Guidance for Site Investigation and Remediation.

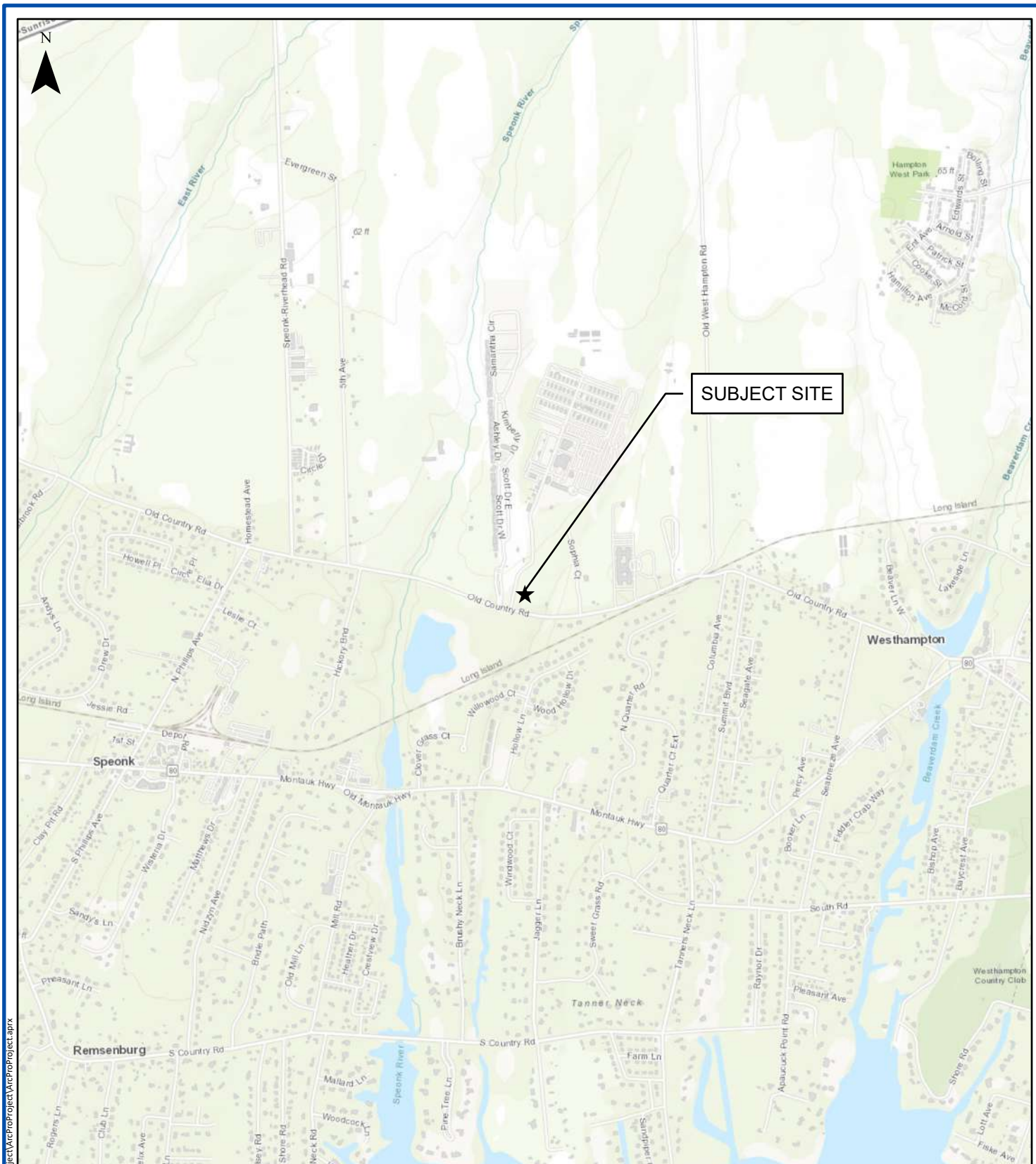
NYSDEC, Division of Technical and Administrative Guidance, October 27, 1989, Memorandum #4031 - Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites.

PWGC, UIC Structure Sampling and Remediation, January 2014.

SCDHS, UIC Data Summary and UIC Remedial Cost Estimate, August 12, 2021.

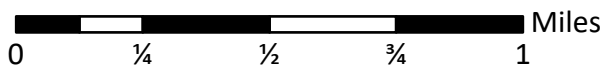


FIGURES



SITE LOCATION

98 Old Country Road
Westhampton, NY



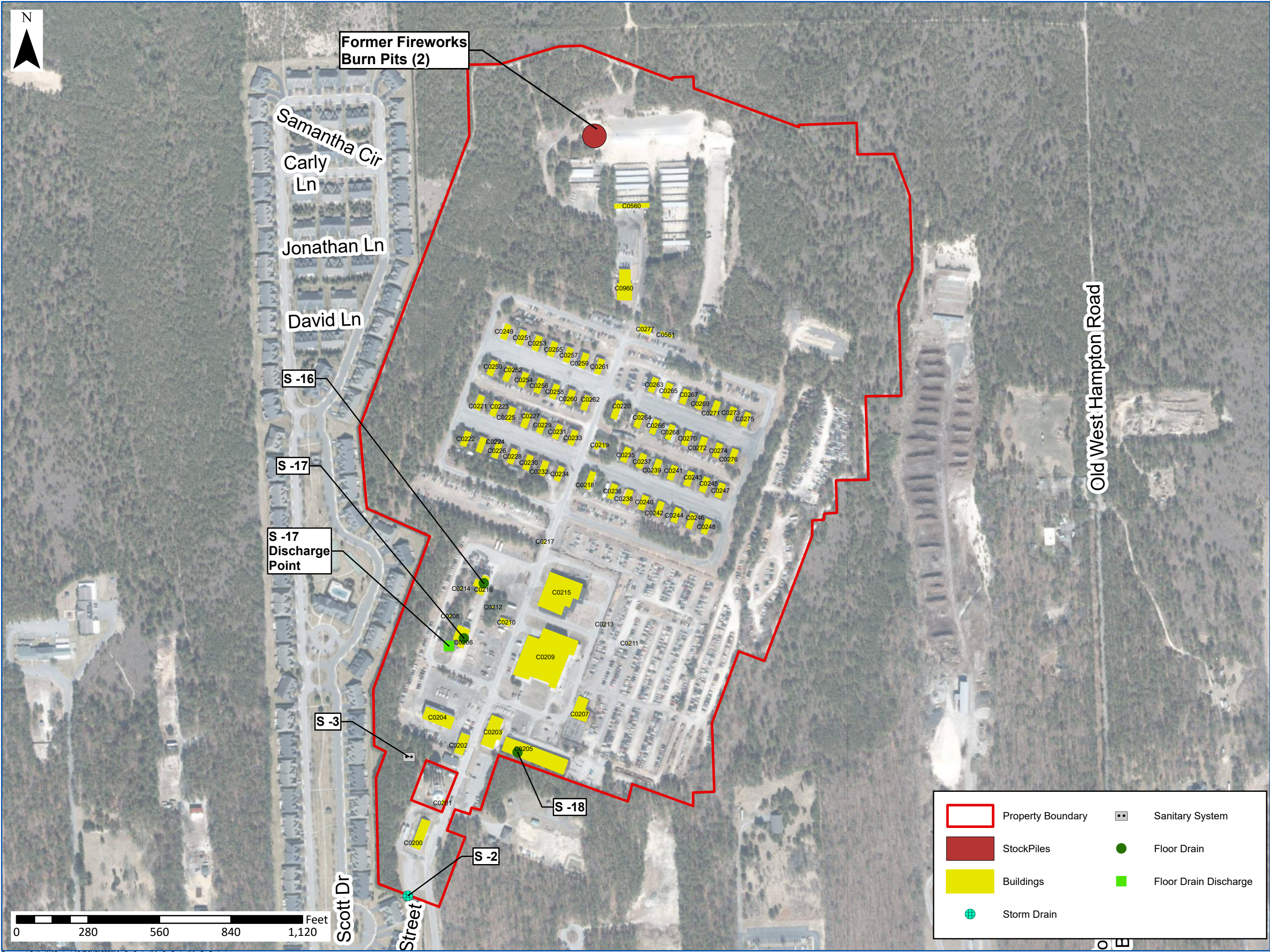
Project:	SHD2201
Date:	4/4/2022
Designed by:	JP
Drawn by:	OA
Approved by:	JP
Figure No:	1



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REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	SHD2201	Designed by:	JP
Date:	4/6/2022	Drawn by:	OA
Scale:	AS SHOWN	Approved by:	JP

**IMPACTED
UIC
STRUCTURES**

98 Old Country Road
Westhampton, NY

FIGURE NO:



APPENDIX A HEALTH AND SAFETY PLAN

**BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
NYSDEC SITE: 152262**

HEALTH AND SAFETY PLAN

SUBMITTED TO:



New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7016

PREPARED FOR:

Suffolk County
H. Lee Dennison Building
Hauppauge, New York 11788

PREPARED BY:



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PWGC Project Number: SHD2201

MAY 2022

P.W. GROSSER CONSULTING, INC.
PROJECT No. SHD2201

HEALTH AND SAFETY PLAN

BOMARC Site
100 Old Country Road
Westhampton, New York
Site No.: 152262

SUBMITTED:

August 2022

PREPARED FOR:

New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233

ON BEHALF OF:

Suffolk County
H. Lee Dennison Building
Hauppauge New York 11788

PREPARED BY:

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630 Johnson Avenue, Suite 7
Bohemia, New York 11716

**HEALTH AND SAFETY PLAN
BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
SITE NO.: 152262**

TABLE OF CONTENTS	PAGE
STATEMENT OF COMMITMENT	1
1.0 INTRODUCTION AND SITE ENTRY REQUIREMENTS.....	2
1.1 Site Safety Plan Acceptance, Acknowledgement and Amendments	2
1.2 Daily Safety Meetings.....	2
1.3 Key Personnel – Roles and Responsibilities	2
2.0 SITE BACKGROUND AND SCOPE OF WORK	3
3.0 POTENTIAL HAZARDS OF THE SITE	5
3.1 Chemical Hazards	5
3.1.1 Additional Chemical Hazards.....	1
3.2 Biological Hazards	1
3.2.1 Animals	1
3.2.2 Insects.....	1
3.2.3 Plants	2
3.3 Physical Hazards.....	2
3.3.1 Temperature Extremes.....	2
3.3.2 Noise	2
3.3.3 Fire and Explosion.....	2
3.3.4 Manual Lifting/Material Handling	3
3.3.5 Slips, Trips and Falls	3
3.3.6 Heavy Equipment Operation	3
3.3.7 Electrocution	3
4.0 PERSONAL PROTECTIVE EQUIPMENT	4
4.1 Level D.....	4
4.2 Level C	4
4.3 Level B	5
5.0 AIR MONITORING.....	6
6.0 TRAINING AND MEDICAL SURVEILLANCE	6
6.1 Annual Eight-Hour Refresher Training	6
6.2 Medical Surveillance	6
7.0 CONTINGENCY PLAN/EMERGENCY RESPONSE PLAN.....	7
7.1 Emergency Equipment On-site	7
7.2 Emergency Telephone Number	7
7.3 Personnel Responsibilities during an Emergency	8
7.4 Medical Emergencies	8
7.5 Fire or Explosion.....	8
7.6 Evacuation Routes.....	8

FIGURES

FIGURE 1 HOSPITAL ROUTE MAP

APPENDICES

APPENDIX A	SITE SAFETY PLAN ACCEPTANCE AND ACKNOWLEDGMENT FORM
APPENDIX B	SITE SAFETY AMENDMENT FORM
APPENDIX C	CHEMICAL SAFETY DATA SHEETS
APPENDIX D	HEAT AND COLD STRESS SAFETY
APPENDIX E	FIELD ACCIDENT REPORT

STATEMENT OF COMMITMENT

This Health and Safety Plan (HASP) has been prepared to ensure that workers are not exposed to chemical, biological and physical hazards during the planned Interim Remedial Measure (IRM) to be performed at the site known as the BOMARC Site located at 100 Old Country Road, Westhampton, New York. P.W. Grosser Consulting Inc.'s (PWGC's) policy is to minimize the possibility of work-related exposure through awareness and qualified supervision, health and safety training, medical monitoring, use of appropriate personal protective equipment, and the following activity specific safety protocols contained in this HASP. PWGC has established a guidance program to implement this policy in a manner that protects personnel to the maximum reasonable extent.

This HASP, which applies to persons present at the site actually or potentially exposed to safety or health hazards, describes emergency response procedures for actual and potential physical, biological and chemical hazards. This HASP is also intended to inform and guide personnel entering the work area or exclusion zone. Persons are to acknowledge that they understand the potential hazards and the contents of this Health and Safety policy.

1.0 INTRODUCTION AND SITE ENTRY REQUIREMENTS

This document describes the health and safety guidelines developed by P.W. Grosser Consulting, Inc. (PWGC) at the request of Suffolk County for the proposed IRM to be performed at the Site to protect on-site personnel, visitors, and the public from exposure to hazardous materials or wastes. In accordance with the Occupational Safety and Health Administration (OSHA) 29 CFR Part 1910.120 Hazardous Waste Operations and Emergency Response Final rule, this HASP, including the attachments, addresses safety and health hazards relating to this phase of site operations and is based on the best information available. The HASP may be revised by PWGC at the request of Suffolk County upon receipt of new information regarding site conditions. Changes will be documented by written amendments.

1.1 Site Safety Plan Acceptance, Acknowledgement and Amendments

The project manager and the site safety officer are responsible for informing personnel entering the work area of the contents of this plan and ensuring that each person signs the safety plan acknowledging the on-site hazards and procedures required to minimize exposure to adverse effects of these hazards. A copy of the Acknowledgement Form is included in **Appendix A**.

Site conditions may warrant an amendment to the HASP. Amendments to the HASP are acknowledged by completing forms included in **Appendix B**.

1.2 Daily Safety Meetings

Each day before work begins; the site safety officer will hold safety (tailgate or tool box) meetings to ensure that on-site personnel understand the site conditions and operating procedures and to address safety questions and concerns. Meeting minutes and attendance will be recorded. Project staff will discuss and remedy health and safety issues at these meetings.

1.3 Key Personnel – Roles and Responsibilities

The following key personnel are planned for this project:

- Project Manager (PM)
- Site Safety Officer (SSO)

The project manager is responsible for overall project administration and, with guidance from the site safety officer, for supervising the implementation of this HASP. The site safety officer will conduct daily (tail gate or tool box) safety meetings at the project site and oversee daily safety issues. Each subcontractor and supplier (defined as an OSHA employer) is also responsible for the health and safety of its employees. If there is any

dispute about health and safety or project activities, on-site personnel will attempt to resolve the issue. If the issue cannot be resolved at the site, then the project manager will be consulted.

The Site Safety Office is responsible for the following:

1. Educating personnel about information in this HASP and other safety requirements to be observed during site operations, including, but not limited to, designation of work zones and levels of protection and emergency procedures dealing with fire and first aid.
2. Coordinating site safety decisions with the project manager.
3. Monitoring the condition and status of known on-site hazards specified in this HASP.
4. Maintaining the work zone entry/exit log and site entry/exit log.
5. Maintaining records of safety problems, corrective measures and documentation of chemical exposures or physical injuries (the site safety officer will document these conditions in a bound notebook and maintain a copy of the notebook on-site).

The person who observes safety concerns and potential hazards that have not been addressed in the daily safety meetings should immediately report their observations/concerns to the site safety officer or appropriate key personnel.

2.0 SITE BACKGROUND AND SCOPE OF WORK

The Site is identified in the Suffolk County Tax Map as: 0900-331.00-01.00-Lot Nos. 001.100, and 002.000 through 015.000. The Site measures approximately 186 acres in size and is located to the north of Old Country Road and west of Old Westhampton Road. The property includes 56 structures which originally housed BOMARC missiles, along with other structures utilized by Suffolk County. Large parking lots are also present at the site along with a shooting range. The Site is bounded to the north by undeveloped pine barrens, to the east by commercial/industrial land uses, to the south by Old Country Road, and to the west by recent residential development.

The former BOMARC Missile Base was operated by the US Air Force as one of 10 BOMARC facilities protecting the east coast from a potential Soviet air attack from 1959 until it was decommissioned in 1964. Fifty-six nuclear-tipped missiles were located at this facility which utilized tritium and required frequent maintenance (every 90 days). After decommissioning, the property was turned over to Suffolk County as surplus property in the 1960s.

Volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), heavy metals and/or polychlorinated biphenyls (PCBs) were identified in bottom sediments or surficial soils associated with underground injection control (UIC) structures or discharge points in contravention of their regulatory standards. In order to prevent the discharge of VOCs, SVOCs, heavy metals and PCBs into the subsurface, contaminated sediment and soils will be removed and transported off-site for disposal.

3.0 POTENTIAL HAZARDS OF THE SITE

This section presents an assessment of the chemical, biological, and physical hazards that may be encountered. Additional information can be found in **Appendix C** - Safety Data Sheets.

3.1 Chemical Hazards

Review of historical information from the site indicates that the VOCs, SVOCs, heavy metals, and PCBs were detected above their respective Suffolk County Department of Health Services (SCDHS) Action Levels and/or New York State Department of Environmental Conservation (NYSDEC) unrestricted use soil cleanup objectives (UUSCOs) in sediment and surficial soil at the site. These compounds may present an occupational exposure hazard during site operations.

The chemicals identified above may have fetal effects and effects on the eyes, skin, respiratory tract, kidneys, liver, central nervous system, and reproductive organs. Acute exposure symptoms may include skin and eye irritation, nausea, headache, shortness of breath, muscle weakness, abdominal pain, mood swings, central nervous system depression, vomiting, lung damage and liver damage. Specific information on the chemicals identified at the Site can be found in Table 5-1 as well as on the Safety Data Sheets found in **Appendix C**.

Table 5-1
Chemical Hazards

COMPOUND	CAS#	TLV	ROUTES OF EXPOSURE	SYMPTOMS OF EXPOSURE	TARGET ORGANS	PHYSICAL DATA
Benzene	71-43-2	0.5 ppm	Inhalation Ingestion Skin/Eye	Short Term: Sore throat, redness and pain on skin, redness, eye irritation, dizziness, headache, abdominal pain, nausea, vomiting and diarrhea. Long Term: Causes damage to organs through prolonged or repeated exposure. May cause cancer and genetic defects.	Respiratory tract, eyes and skin	Clear liquid
Benzo(b)fluoranthene	205-99-2	50 ppm	Inhalation Ingestion Skin/Eye	Harmful if swallowed. Causes skin irritation, serious eye irritation. May cause cancer or respiratory irritation.	Respiratory tract, eyes and skin	Colorless liquid
Chrysene	218-01-9	0.2 mg/m ³	Inhalation Ingestion Skin/Eye	May cause eye irritation, skin irritation, gastrointestinal irritation with nausea, vomiting and diarrhea, and respiratory tract irritation. Chronic exposure may cause cancer.	Liver and skin	Light beige solid
Barium	7440-39-3	0.2 mg/m ³	Inhalation Ingestion Skin/Eye	Eye irritation, muscular stimulation, skin irritation, and gastrointestinal irritation. Not classifiable as a human carcinogen.	Respiratory tract, eyes and skin	Grey solid pieces
Cadmium	7440-43-9	0.01 mg/m ³	Inhalation Ingestion Skin/Eye	Fatal if inhaled and harmful if swallowed or in contact with skin. May cause respiratory irritation, genetic defects, and cancer. Suspected of damaging fertility, unborn child, and organs through prolonged or repeated exposure.	Respiratory track and kidneys	Silver solid

COMPOUND	CAS#	TLV	ROUTES OF EXPOSURE	SYMPTOMS OF EXPOSURE	TARGET ORGANS	PHYSICAL DATA
Chromium	7440-47-3	0.5 mg/m ³	Inhalation Ingestion Skin/Eye	Irritation to upper respiratory tract, skin, and eyes. Digestive disorders, lung damage, kidney damage, tearing, vomiting, stomach pain and dizziness.	Kidneys, lungs, liver, and upper respiratory tract.	Silver-white to grey solid
Copper	7440-50-8	0.2 mg/m ³	Inhalation Ingestion Skin/Eye	Short Term: Irritation, nausea, headache and shortness of breath. Long Term: chronic copper poisoning including hepatic cirrhosis, brain damage and demyelination, Wilson's disease, hemolytic anemia and arteriosclerosis. Inhalation of fumes may cause fume fever.	Brain and kidneys	Red-to-brown solid
Lead	7439-92-1	0.5 mg/m ³	Inhalation Ingestion Skin/Eye	Short Term: Pain, muscle weakness, paraneesthesia, abdominal pain, nausea, vomiting, diarrhea, constipation, poor appetite, weight loss, inflammation of the brain, hemolysis, and kidney damage. Long Term: Loss of short-term memory or concentration, depression, nausea, abdominal pain, loss of coordination, numbness and tingling in the extremities, fatigue, problems with sleep, headache, slurred speech, anemia, burton line, high blood pressure, mood disorders, reduced sperm count, miscarriage or premature birth.	Brain, kidneys, reproductive organs	Bluish-white, silver-grey solid

COMPOUND	CAS#	TLV	ROUTES OF EXPOSURE	SYMPTOMS OF EXPOSURE	TARGET ORGANS	PHYSICAL DATA
Mercury	7439-97-6	0.025 mg/m ³	Inhalation Ingestion Skin/Eye	Tremors, mood swings, insomnia, neuromuscular changes, headaches, disturbances in sensations, changes in nerve responses, poor performance on tests of mental function, and kidney and respiratory failure.	Central nervous system and kidneys	Silver liquid
Aroclor 1254	11097-69-1	0.001 mg/m ³	Inhalation Ingestion Skin/Eye	Short Term: central nervous system depression, headache, dizziness, nausea, vomiting, anorexia, incoordination and unconsciousness. Skin and eye Irritation, lung damage and liver damage. Long Term: rash, itching, hair loss, digestive issues, headache, dizziness, impotence, coma, reproductive effects, hyperactivity, menstrual disorders and cancer.	Central nervous system, lung, liver, kidneys and reproductive organs	Clear, yellow liquid

Abbreviations

C = Ceiling limit, not to be exceeded

CNS = Central Nervous System

TVL=Threshold limit values

ppm = parts per million

TWA = Time-weighted average (8 hours)

3.1.1 *Additional Chemical Hazards*

Based upon the presence of VOCs and SVOCs in onsite sediments and soils, there is the potential to come in contact with petroleum related VOC's and semi-VOC's given the past and existing storage of petroleum products and the nature of the activities at the site. Additionally, metals are commonly found in subsurface soils. For these reasons, specific information regarding the compounds most anticipated to be encountered can be found in the Safety Data Sheets in **Appendix C. Additional compounds will be added should sampling activities planned at the site document their presence.**

3.2 **Biological Hazards**

Work will be performed within vacant buildings and highly vegetated areas. During the project, there is potential for workers to come into contact with biological hazards such as animals, insects and plants.

3.2.1 *Animals*

The Site is located in a predominantly developed area is surrounded with undeveloped wooded areas. It is possible that deer, dogs, cats, rats and mice may be present. Workers shall use discretion and avoid all contact with animals.

3.2.2 *Insects*

Insects, such as mosquitoes, ticks, bees and wasps may be present during certain times of the year. Workers will be encouraged to wear appropriate repellents and PPE, if deemed necessary, when working in areas where insects are expected to be present.

During the months of April through October, caution must be exercised to minimize exposure to deer ticks and the potential for contracting Lyme disease. Given the nature of the compounds of concern, certain sampling equipment, field clothing and PPE should be avoided, if possible. Specific precautionary work practices that are recommended include the following:

- Cover your body as much as possible. Wear long pants and long-sleeved shirts. Light color clothing makes spotting of ticks easier.
- Try to eliminate possible paths by which the Deer Tick may reach unprotected skin. For example, tuck bottoms of pants into socks or boots and sleeves into gloves. (Duct tape may be utilized to help seal cuffs and ankles). If heavy concentrations of ticks or insects are anticipated or encountered, Tyvek coveralls may be utilized for added protection when the potential for heat stress is not a concern.

- Conduct periodic and frequent, (e.g., hourly), surveys of your clothing for the presence of ticks. Remove any tick, save it and report to the clinic with the tick.
- Certain types of Insect repellents may be used and are listed below.
 - Jason Natural Quit Bugging Me, Repel Lemon Eucalyptus Insect Repellent, Herbal Armor, California Baby Natural Bug Spray, BabyGanics.

3.2.3 *Plants*

Poison ivy, sumac and oak may be present on site. The PM/SSO should identify the susceptible individuals. Worker shall avoid all contact with these plants.

3.3 **Physical Hazards**

During the project, there is potential for workers to come into contact with physical hazards such as heat stress, cold stress, noise, fire and explosions.

3.3.1 *Temperature Extremes*

Heat Stress

Heat stress is a significant potential hazard, which is greatly exacerbated with the use of PPE in hot environments. The potential hazards of working in hot environments include dehydration, cramps, heat rash, heat exhaustion, and heat stroke.

Cold Stress

At certain times of the year, workers may be exposed to the hazards of working in cold environments. Potential hazards in cold environments include frostbite, trench foot or immersion foot, hypothermia as well as slippery surfaces, brittle equipment, and poor judgment.

PWGC's Heat/Cold Stress Protocols are specified in **Appendix D**.

3.3.2 *Noise*

Noise is a potential hazard associated with the operation of heavy equipment, guzzler, pumps and engines. Workers will wear hearing protection while in the work zone when these types of machinery are operating.

3.3.3 *Fire and Explosion*

When conducting excavation or drilling activities, the opportunity of encountering fire and explosion hazards may exist from encountering underground utilities, from the use of diesel engine equipment, propane, liquefied

petroleum gas and other potential ignition sources. During dry periods there is an increased chance of forest and brush fires starting at the job site. If these conditions occur no smoking will be permitted at the site and all operations involving potential ignition sources will be monitored continuously (fire watch).

3.3.4 *Manual Lifting/Material Handling*

Manual lifting of heavy objects may be required. Failure to follow proper lifting technique can result in back injuries and strains. Back injuries are a serious concern as they are the most common work place injury, often resulting in lost or restricted work time, and long treatment and recovery periods.

3.3.5 *Slips, Trips and Falls*

Working in and around the site will pose slip, trip and fall hazards due to slippery surfaces that may be oil covered, or from rough terrain, surfaces that are steep inclines, surfaced debris, or surfaces which are wet from rain or ice. Falls may result in twisted ankles, broken bones, head trauma or back injuries.

3.3.6 *Heavy Equipment Operation*

Guzzlers and pump trucks and an excavator/backhoe may be used to break up concrete excavate where required. Working with or near heavy equipment poses many potential hazards, including electrocution, fire/explosion, being struck by or against, or pinched/caught/crushed by, and can result in serious physical harm.

3.3.7 *Electrocution*

Encountering underground utilities may pose electrical hazards to workers. Additionally, overhead electrical lines can be a concern during drilling operations. Potential adverse effects of electrical hazards include burns and electrocution, which could result in death.

4.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) shall be selected in accordance with OSHA 29 CFR 1910.120(c), (g), and 1910.132. Protective equipment shall be NIOSH approved and respiratory protection shall conform to OSHA 29 CFR Part 1910.133 and 1910.134 specifications; head protection shall conform to 1910.135; eye and face protection shall conform to 1910.133; and foot protection shall conform to 1910.136. The only true difference among the levels of protection from D through B is the addition of the type of respiratory protection. **It is anticipated that work will be performed in Level D PPE.**

4.1 Level D

Level D PPE shall be donned when the atmosphere contains no known hazards and work functions preclude splashes, immersion, or the potential for inhalation of, or contact with, hazardous concentrations of harmful chemicals. Given the nature of the compounds of concern, certain sampling equipment, field clothing and PPE should be avoided, if possible. Level D PPE consists of:

- standard work uniform, coveralls, or tyvek, as needed;
- steel toe work that do not contain Gore-Tex. boots;
- hard hat;
- gloves, as needed;
- safety glasses;
- hearing protection;
- equipment replacements are available as needed.

4.2 Level C

Level C PPE shall be donned when the concentrations of measured total organic vapors in the breathing zone exceed background concentrations (using a portable PID, or equivalent), but are less than 5 ppm. The specifications on the APR filters used must be appropriate for contaminants identified or expected to be encountered. Level C PPE shall be donned when the identified contaminants have adequate warning properties and criteria for using APR have been met. Given the nature of the compounds of concern, certain sampling equipment, field clothing and PPE should be avoided, if possible. Level C PPE consists of:

- chemical resistant or coated tyvek coveralls;
- steel-toe work boots that do not contain Gore-Tex;
- chemical resistant over boots or disposable boot covers;
- disposable inner gloves (surgical gloves);
- disposable outer gloves;

- full face APR fitted with organic vapor/dust and mist filters or filters appropriate for the identified or expected contaminants;
- hard hat;
- splash shield, as needed; and,
- ankles/wrists taped with duct tape.

The site safety officer will verify if Level C is appropriate by checking organic vapor concentrations using compound and/or class-specific detector tubes.

4.3 Level B

Level B PPE shall be donned when the contaminants have not been identified and/or the concentrations of unknown measured total organic vapors in the breathing zone exceed 5 ppm (using a portable PID, or equivalent). Level B PPE shall be donned if the IDLH of a known contaminant is exceeded. If a contaminant is identified or is expected to be encountered for which NIOSH and/or OSHA recommend the use of a positive pressure self-contained breathing apparatus (SCBA) when that contaminant is present, Level B PPE shall be donned even though the total organic vapors in the breathing zone may not exceed 5 ppm. Level B shall be donned for confined space entry, and when the atmosphere is oxygen deficient (oxygen less than 19.5%) or potentially oxygen deficient. If Level B PPE is required for a task, at least three people shall be donned in Level B at any one time during that task. PPE shall only be donned at the direction of the site safety officer. Given the nature of the compounds of concern, certain sampling equipment, field clothing and PPE should be avoided, if possible. Level B PPE consists of:

- supplied air SCBA or airline system with five-minute egress system;
- chemical resistant coveralls;
- steel-toe work boots that do not contain Gore-Tex;
- chemical resistant over boots or disposable boot covers;
- disposable inner gloves;
- disposable outer gloves;
- hard hat; and,
- ankles/wrists taped.

The exact PPE ensemble is decided on a site-by-site basis by the PWGC Health and Safety Officer with the intent to provide the most protective and efficient worker PPE.

5.0 AIR MONITORING

Air monitoring will be performed for protection for on-site workers and the downwind community (i.e., off-site receptors including residences, businesses, and on-site workers not directly involved in the remedial investigation work) from potential airborne contaminant releases resulting from remedial activities at the site. Air monitoring will be used to help to confirm that the remedial investigation work will not spread contamination off-site through the air. The primary concerns for this site are dust particulates and VOCs. Site monitoring with a photo-ionization detector (PID) and particulate dust/aerosol meter will be performed during any invasive activities.

Real-time monitoring for dust and VOCs will be conducted both within the work area, and along the site perimeter, during intrusive activities such as excavation and drilling activities.

Detailed information on the types, frequency and location of real-time monitoring and community air monitoring requirements are provided in the Community Air Monitoring Plan (CAMP) specified in Appendix 1A of *Division of Environmental Remediation's Draft DER-10 – Technical Guidance for Site Investigation and Remediation (December 2010)*.

6.0 TRAINING AND MEDICAL SURVEILLANCE

Site workers that have the potential of coming in contact with site contaminants will have the following training and medical surveillance

6.1 Annual Eight-Hour Refresher Training

Annual eight-hour refresher training will be required of site field personnel directly involved with site activities whom may come in contact with site contaminants. The training will cover a review of 1910.120 requirements and related company programs and procedures.

6.2 Medical Surveillance

Site field personnel directly involved with site activities whom may come in contact with site contaminants are required to have passed a complete medical surveillance examination in accordance with 29 CFR 1910.120(f).

7.0 CONTINGENCY PLAN/EMERGENCY RESPONSE PLAN

Site personnel must be prepared in the event of an emergency. Emergencies can take many forms: illnesses, injuries, chemical exposure, fires, explosions, spills, leaks, releases of harmful contaminants, or sudden changes in the weather.

Emergency telephone numbers and a map to the hospital (**Figure 1**) will be posted on-site. Site personnel should be familiar with the emergency procedures, and the locations of site safety, first aid, and communication equipment. These will be outlined in the site specific HASP.

7.1 Emergency Equipment On-site

Private telephones:	Site personnel.
Two-way radios:	Site personnel where necessary.
Emergency Alarms:	On-site vehicle horns*.
First aid kits:	On-site, in vehicles or office.
Fire extinguisher:	On-site, in office or on equipment.

7.2 Emergency Telephone Number

General Emergencies	911
Suffolk County Police	911
Peconic Bay Medical Center	1-631-548-6000
NYSDEC Spills Division	1-800-457-7362
NYSDEC Hazardous Waste Division	1-718-482-4994
Suffolk County Department of Health	1-631-854-0000
Westhampton Beach Fire Department	911
National Response Center	1-800-424-8802
Poison Control	1-212-340-4494
Project Manager	1-631-589-6353
Health & Safety Officer	1-631-589-6353
Alternate Health & Safety Officer	1-631-589-6353

7.3 Personnel Responsibilities during an Emergency

The project manager is primarily responsible for responding to and correcting any emergency situations. However, in the absence of the project manager, the site safety officer shall act as the project manager's on-site designee and perform the following tasks:

- Take appropriate measures to protect personnel;
- Ensure that appropriate federal, state, and local agencies are informed, and emergency response plans are coordinated. In the event of fire or explosion, the local fire department should be summoned immediately. If toxic materials are released to the air, the local authorities should be informed in order to assess the need for evacuation;
- Ensure appropriate decontamination, treatment, or testing for exposed or injured personnel;
- Determine the cause of incidents and make recommendations to prevent recurrence; and,
- Ensure that all required reports have been prepared.

7.4 Medical Emergencies

A person who becomes ill or injured, first aid will be administered while waiting for an ambulance or paramedics. A Field Accident Report (**Appendix E**) must be filled out for any injury.

A person transporting an injured/exposed person to a clinic or hospital for treatment will take the directions to the hospital and information on the chemical(s) to which they may have been exposed.

7.5 Fire or Explosion

In the event of a fire or explosion, the local fire department will be summoned immediately. The site safety officer or his designated alternate will advise the fire commander of the location, nature and identification of the hazardous materials on-site. If it is safe to do so, site personnel may:

- use firefighting equipment available on site; or,
- remove or isolate flammable or other hazardous materials that may contribute to the fire.

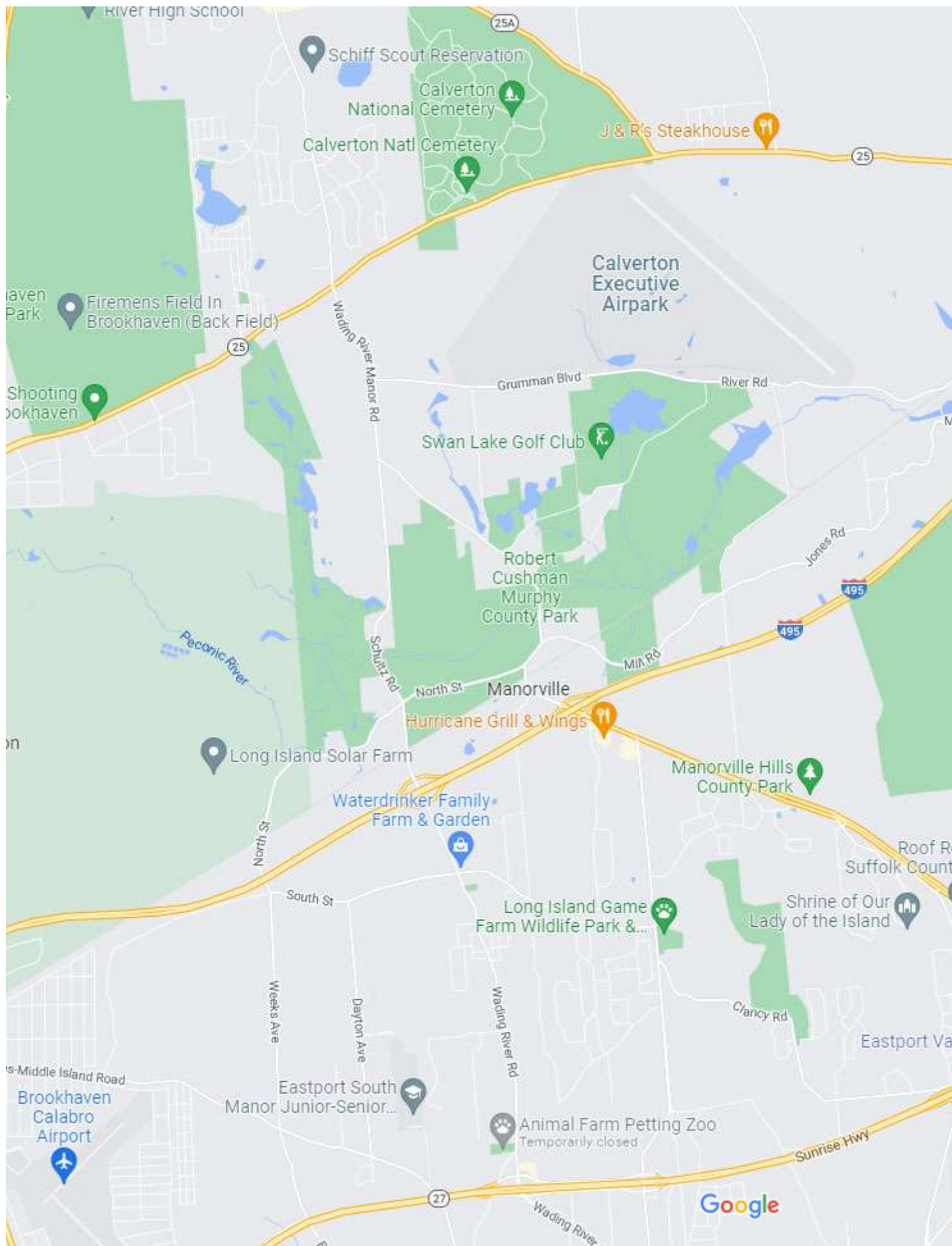
7.6 Evacuation Routes

Evacuation routes established by work area locations for each site will be reviewed prior to commencing site operations. As the work areas change, the evacuation routes will be altered accordingly, and the new route will be reviewed.

Under extreme emergency conditions, evacuation is to be immediate without regard for equipment. The evacuation signal will be a continuous blast of a vehicle horn, if possible, and/or by verbal/radio communication. When evacuating the site, personnel will follow these instructions:

- Keep upwind of smoke, vapors, or spill location.
- Exit through the decontamination corridor if possible.
- If evacuation through the decontamination corridor is not possible, personnel should remove contaminated clothing once they are in a safe location and leave it near the exclusion zone or in a safe place.
- The site safety officer will conduct a head count to ensure that all personnel have been evacuated safely. The head count will be correlated to the site and/or exclusion zone entry/exit log.
- If emergency site evacuation is necessary, all personnel are to escape the emergency situation and decontaminate to the maximum extent practical.

FIGURES



100 Old Country Rd
Westhampton, NY 11977

Take Speonk Riverhead Rd to County Rd 51 N/Moriches-Riverhead Rd in Northampton

-
- 6 min (4.5 mi)
1. Head west on Old Country Rd
-
- 0.6 mi
2. Turn right onto Speonk Riverhead Rd
-
- 3.9 mi

Continue on County Rd 51 N to Riverhead

-
- 5 min (3.3 mi)
3. Turn right onto County Rd 51 N/Moriches-Riverhead Rd
- i** Continue to follow County Rd 51 N
-
- 2.9 mi
4. Turn right onto Nugent Dr
-
- 0.2 mi
5. At the traffic circle, take the 4th exit onto Peconic Ave
-
- 0.2 mi
6. Turn right onto E Main St
-
- 115 ft

Follow Roanoke Ave to Old Country Rd

-
- 4 min (1.4 mi)
7. Turn left after Cucina 25 (on the left)
-
- 1.3 mi
8. At the traffic circle, take the 1st exit onto Old Country Rd
-
- 466 ft

Peconic Bay Medical Center
1300 Roanoke Ave, Riverhead, NY 11901

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.



HEALTH AND SAFETY WORK PLAN

APPENDIX A

Site Safety Plan Acknowledgement Form



SITE SAFETY PLAN ACKNOWLEDGMENT FORM

I have been informed and understand the procedures set forth in the HASP and amendments:

[illegible]



HEALTH AND SAFETY WORK PLAN

APPENDIX B

Site Safety Plan Amendment Form



SITE SAFETY PLAN AMENDMENT FORM

Site Safety Plan Amendment # _____

Site Name: _____

Reason for Amendment:

Alternative Procedures: _____

Required Changes in PPE: _____

Project Superintendent

Date

Health & Safety Consultant

Date

Site Safety Officer

Date



HEALTH AND SAFETY WORK PLAN

APPENDIX C Safety Data Sheets

SAFETY DATA SHEET

Version 3.10
Revision Date 10/02/2017
Print Date 10/19/2018

1. PRODUCT AND COMPANY IDENTIFICATION**1.1 Product identifiers**

Product name : Barium

Product Number : 474711

Brand : Aldrich

CAS-No. : 7440-39-3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Substances and mixtures, which in contact with water, emit flammable gases (Category 2), H261

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H261

In contact with water releases flammable gases.

Precautionary statement(s)

P223

Do not allow contact with water.

P231 + P232

Handle under inert gas. Protect from moisture.

P280

Wear protective gloves/ eye protection/ face protection.

P335 + P334

Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages.

P370 + P378

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P402 + P404

Store in a dry place. Store in a closed container.

P501

Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : Ba
Molecular weight : 137.33 g/mol
CAS-No. : 7440-39-3
EC-No. : 231-149-1

Hazardous components

Component	Classification	Concentration
Barium	Water-react. 2; H261	90 - 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Dry powder

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Never allow product to get in contact with water during storage.

Store under inert gas.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Barium	7440-39-3	TWA	0.500000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Eye, skin, & Gastrointestinal irritation Muscular stimulation Not classifiable as a human carcinogen		
		TWA	0.500000 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.500000 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Eye irritation Muscular stimulation Skin irritation Gastrointestinal irritation Not classifiable as a human carcinogen		
		TWA	0.500000 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	0.5 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	0.5 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		Eye irritation Muscular stimulation Skin irritation Gastrointestinal irritation Not classifiable as a human carcinogen		

		TWA	0.5 mg/m3	USA. NIOSH Recommended Exposure Limits
		PEL	0.5 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Flame retardant protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: Pieces Colour: grey
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: 725 °C (1,337 °F) - lit.

f) Initial boiling point and boiling range	1,640 °C (2,984 °F) - lit.
g) Flash point	Not applicable
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	3.6 g/cm ³ at 25 °C (77 °F)
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reacts violently with water.

10.4 Conditions to avoid

Exposure to moisture

10.5 Incompatible materials

Oxidizing agents, Water, acids, Oxygen, Chlorinated solvents, Carbon dioxide (CO₂), Halogens, Halogenated hydrocarbon, Alcohols, Sulphur compounds, Hydrogen sulfide gas

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Barium oxide

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: CQ8370000

Stomach/intestinal disorders, Nausea, Vomiting, Drowsiness, Dizziness, Gastrointestinal disturbance, Weakness, Tremors, Seizures.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity to fish	mortality NOEC - Cyprinodon variegatus (sheepshead minnow) - 500 mg/l - 96 h
	LC50 - Cyprinodon variegatus (sheepshead minnow) - > 500 mg/l - 96 h

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 1400 Class: 4.3 Packing group: II
Proper shipping name: Barium
Reportable Quantity (RQ): 1000 lbs
Poison Inhalation Hazard: No

IMDG

UN number: 1400 Class: 4.3 Packing group: II EMS-No: F-G, S-O
Proper shipping name: BARIUM

IATA

UN number: 1400 Class: 4.3 Packing group: II
Proper shipping name: Barium

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Barium	7440-39-3	2007-07-01

SARA 311/312 Hazards

Reactivity Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Barium	7440-39-3	2007-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Barium	7440-39-3	2007-07-01

New Jersey Right To Know Components

	CAS-No.	Revision Date
Barium	7440-39-3	2007-07-01

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H261 In contact with water releases flammable gases.

Water-react. Substances and mixtures, which in contact with water, emit flammable gases

HMIS Rating

Health hazard:	0
Chronic Health Hazard:	
Flammability:	3
Physical Hazard	1

NFPA Rating

Health hazard:	0
Fire Hazard:	3
Reactivity Hazard:	1
Special hazard.I:	W

Further information

Copyright 2016 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information

Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 3.10

Revision Date: 10/02/2017

Print Date: 10/19/2018

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Chemical name : benzene
EC Index : 601-020-00-8
EC No : 200-753-7
CAS No. : 71-43-2
REACH registration No. : 01-2119447106-44
Formula : C₆H₆

1.2. Relevant identified uses of the substance or mixture and uses advised against

Specific use(s) : Use as an intermediate
The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such.

1.3. Details of the supplier of the safety data sheet

Company : Transcor Energy
Parc de L'Alliance, Boulevard de France 7
1420 Braine-L'Alleud, Belgium
Telephone +32 2 663 19 00
Telefax: +32 2 675 49 99
E-mail: reach@transcor.be

1.4. Emergency telephone number

Emergency telephone : +32 3 575 03 30 (This telephone number is available 24 hours per day, 7 days per week.)

IRELAND (REPUBLIC OF)
National Poisons Information Centre
Beaumont Hospital +353 18 37 99 64/+353 1 809 21 66
UNITED KINGDOM
National Poisons Information Service
(Newcastle Centre) 0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
Regional Drugs and Therapeutics Centre,
Wolfson Unit

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EU) 1272/2008

CLP-Classification : The product is classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

Flam. Liq. 2 H225
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Muta. 1B H340
Carc. 1A H350
STOT RE 1 H372
Asp. Tox. 1 H304

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

Full text of H-phrases: see section 16

2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC

Classification : This substance is classified as hazardous according to 67/548/EEC.
F; R11
Xn; R65
T; R48/23/24/25
Xi; R36/38
Carc.Cat.1; R45
Muta.Cat.2; R46

Full text of R-phrases: see section 16

2.2. Label elements

2.2.1. Labelling according to Regulation (EU) 1272/2008

Hazard pictograms :



GHS02

GHS07

GHS08

Signal word :

Danger

Hazard statements :

H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H340 - May cause genetic defects.
H350 - May cause cancer.
H372 - Causes damage to organs through prolonged or repeated exposure.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 - Take precautionary measures against static discharge.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P331 - Do NOT induce vomiting.

Precautionary statements :

2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

2.3. Other hazards

Other hazards :

Vapours can form explosive mixtures with air.
Results of PBT and vPvB assessment :
Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
Benzene	(CAS No.) 71-43-2 (EC No) 200-753-7 (EC Index) 601-020-00-8 (REACH-no) 01-2119447106-44-0099	100	F; R11 Xn; R65 T; R48/23/24/25 Xi; R36/38 Carc. Cat. 1; R45 Muta. Cat. 2; R46

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Benzene	(CAS No.) 71-43-2 (EC No) 200-753-7 (EC Index) 601-020-00-8 (REACH-no) 01-2119447106-44-0099	100	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304

Full text of R- and H-phrases: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	: Remove person to fresh air and keep comfortable for breathing. When in doubt or if symptoms are observed, get medical advice. If breathing is irregular or stopped, administer artificial respiration. Get medical advice/attention.
Skin contact	: Take off contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention.
Eye contact	: Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
In case of ingestion	: Rinse mouth thoroughly with water. Do NOT induce vomiting. Get immediate medical advice/attention.
Additional advice	: First aider: Pay attention to self-protection! Personal protection equipment: see section 8 Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice. Show this safety data sheet to the doctor in attendance. Treat symptomatically.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	: Causes damage to organs through prolonged or repeated exposure. The following symptoms may occur: Dizziness Drowsiness Unconsciousness Headache Nausea Convulsions Shortness of breath.

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

Skin contact	: Causes skin irritation. Causes damage to organs through prolonged or repeated exposure. The following symptoms may occur: Dry skin Pain erythema (redness).
Eye contact	: Causes serious eye irritation. The following symptoms may occur: Redness, pain.
Ingestion	: May be fatal if swallowed and enters airways. Causes damage to organs through prolonged or repeated exposure. The following symptoms may occur: Abdominal pain Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Sore throat.
Other adverse effects	: Causes damage to organs through prolonged or repeated exposure. May cause cancer. May cause genetic defects.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray, alcohol resistant foam, Dry extinguishing powder, Carbon dioxide
Extinguishing media which must not be used for safety reasons	: Strong water jet

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapour.
Specific hazards	: Heating causes rise in pressure with risk of bursting. Vapours can form explosive mixtures with air. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode. Hazardous combustion products: Carbon oxides Nitrogen oxides (NOx) Volatile organic compounds

5.3. Advice for firefighters

Advice for firefighters	: Special protective equipment for firefighters. In case of fire: Wear self-contained breathing apparatus. Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses. Dispose according to legislation. Evacuate area.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Evacuate area. Stay upwind/keep distance from source. Provide adequate ventilation. Use personal protective equipment as required. Personal protection equipment: see section 8 Do not breathe vapour/spray. Avoid contact with skin, eyes and clothes. Keep away from heat, hot surfaces, sparks, open flames and other ignition

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

For emergency responders : sources. No smoking.
Ensure that the equipment is adequately grounded.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Use only non-sparking tools.
: Ensure procedures and training for emergency decontamination and disposal are in place.
Personal protection equipment: see section 8.

6.2. Environmental precautions

Environmental precautions : Do not allow to enter into ground-water, surface water or drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Use foam on spills to minimise vapours.
Stop leak if safe to do so.
Dam up.
Clean-up methods - small spillage: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents)., Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Sweep or shovel spills into appropriate container for disposal
Clean-up methods - large spillage: Large spills should be collected mechanically (remove by pumping) for disposal., Collect in closed and suitable containers for disposal.
Large spills should be collected mechanically (remove by pumping) for disposal.
Use only explosion-proof equipment.
Dispose of waste product or used containers according to local regulations.

6.4. Reference to other sections

Personal protection equipment: see section 8
Disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling : Provide adequate ventilation.
Use personal protective equipment as required.
Personal protection equipment: see section 8
Do not breathe vapour/spray.
Avoid contact with skin, eyes and clothes.
Take any precaution to avoid mixing with incompatible materials.
See also section 10
Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH value, time).
Do not allow contact with soil, surface or ground water.
Obtain special instructions before use.
(Do not handle until all safety precautions have been read and understood.)
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ensure that the equipment is adequately grounded.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Use only non-sparking tools.

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such.

Advices on general occupational hygiene : Keep good industrial hygiene.
Wash hands before breaks and immediately after using the product.
When using do not eat, drink or smoke.
Keep away from food, drink and animal feedingstuffs.
Keep work clothes separately.
Take off contaminated clothing.
Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep in a dry, cool and well-ventilated place.
Do not store near or with any of the incompatible materials listed in section 10.
Bund storage facilities to prevent soil and water pollution in the event of spillage.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Packaging materials : Keep/Store only in original container.

7.3 Specific end use(s)

Intermediate.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values :

Benzene (71-43-2)		
Belgium	Limit value (mg/m ³)	3,25 mg/m ³
Belgium	Limit value (ppm)	1 ppm
Bulgaria	OEL TWA (mg/m ³)	3,25 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (mg/m ³)	3,25 mg/m ³
Croatia	GVI (granična vrijednost izloženosti) (ppm)	1 ppm
Cyprus	OEL TWA (mg/m ³)	3,25 mg/m ³
Cyprus	OEL TWA (ppm)	1 ppm
France	VME (mg/m ³)	3,25 mg/m ³ (restrictive limit)
France	VME (ppm)	1 ppm (restrictive limit)
Greece	OEL TWA (mg/m ³)	3,19 mg/m ³
Greece	OEL TWA (ppm)	1,0 ppm
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	0,5 ppm
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	2,5 ppm
Italy	OEL TWA (mg/m ³)	3,25 mg/m ³
Italy	OEL TWA (ppm)	1 ppm
Latvia	OEL TWA (mg/m ³)	3,25 mg/m ³
Latvia	OEL TWA (ppm)	1 ppm
Spain	VLA-ED (mg/m ³)	3,25 mg/m ³ (manufacturing, commercialization, and use restrictions under REACH; worker protection to carcinogens in the workplace)

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

Spain	VLA-ED (ppm)	1 ppm (manufacturing, commercialization, and use restrictions under REACH; worker protection to exposure to carcinogens and mutagens in the workplace)
Switzerland	VME (mg/m ³)	1,6 mg/m ³
Switzerland	VME (ppm)	0,5 ppm
Netherlands	Grenswaarde TGG 8H (mg/m ³)	3,25 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	3,25 mg/m ³
United Kingdom	WEL TWA (ppm)	1 ppm
United Kingdom	WEL STEL (mg/m ³)	9,75 mg/m ³ (calculated)
United Kingdom	WEL STEL (ppm)	3 ppm (calculated)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	3 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	1,6 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	0,5 ppm
Finland	HTP-arvo (8h) (mg/m ³)	3,25 mg/m ³
Finland	HTP-arvo (8h) (ppm)	1 ppm
Hungary	MK-érték	3 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	3 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	1 ppm
Ireland	OEL (15 min ref) (mg/m ³)	9 mg/m ³ (calculated)
Ireland	OEL (15 min ref) (ppm)	3 ppm (calculated)
Lithuania	IPRV (mg/m ³)	3,25 mg/m ³
Lithuania	IPRV (ppm)	1 ppm
Lithuania	TPRV (mg/m ³)	19 mg/m ³
Lithuania	TPRV (ppm)	6 ppm
Norway	Gjennomsnittsverdier (AN) (mg/m ³)	3 mg/m ³
Norway	Gjennomsnittsverdier (AN) (ppm)	1 ppm
Norway	Gjennomsnittsverdier (Kortidsverdi) (mg/m ³)	6 mg/m ³
Norway	Gjennomsnittsverdier (Kortidsverdi) (ppm)	3 ppm
Poland	NDS (mg/m ³)	1,6 mg/m ³
Romania	OEL TWA (mg/m ³)	3,25 mg/m ³
Romania	OEL TWA (ppm)	1 ppm
Sweden	nivågränsvärde (NVG) (mg/m ³)	1,5 mg/m ³
Sweden	nivågränsvärde (NVG) (ppm)	0,5 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	9 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	3 ppm

Recommended monitoring procedures : Personal air monitoring
 Room air monitoring

8.2. Exposure controls

Personal protection equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
 Half-face mask (EN 140)
 Full face mask (EN 136)
 Filter type: AP (EN 141)
 The filter class must be suitable for the maximum contaminant

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

	concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)
Hand protection	: Wear chemically resistant gloves (tested to EN374) ,Suitable material:;NBR (Nitrile rubber) (> 0.45 mm, BTT > 30 min.),PVA (Polyvinyl alcohol) (BTT > 480 min.),Fluoropolymers (BTT > 480 min.),The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.
Eye protection	: Use suitable eye protection. (EN166): Goggles
Body protection	: Wear suitable protective clothing. Wear suitable coveralls to prevent exposure to the skin. Chemical resistant safety shoes
Thermal hazard protection	: Not required under normal use. Use dedicated equipment.
Engineering control measures	: The substance/product is registered with strictly controlled conditions as defined in Article 18(4) of Regulation (EC) No. 1907/2006 (REACH Regulation) and must therefore be handled as such. Provide adequate ventilation. Organisational measures to prevent /limit releases, dispersion and exposure Safe handling: see section 7 . Transfer and handle product only in closed systems. Guarantee that the eye flushing systems and safety showers are closely located to the working place. Store locked up. Take precautionary measures against static discharges. Ensure that the equipment is adequately grounded. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Environmental exposure controls	: Do not allow contact with soil, surface or ground water. Comply with applicable Community environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	: liquid
Colour	: clear
Odour	: characteristic
Odour threshold	: No data available
pH	: No data available
Melting point/freezing point	: 5,49 °C
Initial boiling point and boiling range	: 80,09 °C
Flash point	: 11 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable, liquid
Upper/lower flammability or explosive limits	: < No data available
Vapour pressure	: 10 kPa (20 °C) 100 kPa (79.9 °C)
Vapour density	: No data available

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

Density	:	0,8765 g/cm ³ (20 °C)
Relative density	:	No data available
Water solubility	:	≈ 1,88 g/l (23.5 °C)
Solubility in different media	:	Justification for data waiving not relevant
Partition coefficient n-octanol/water	:	2,13
Auto-ignition temperature	:	498 °C
Decomposition temperature	:	No data available
Viscosity	:	0,604 mPa.s (25 °C)
Explosive properties	:	Not applicable The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	:	Not applicable The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

9.2. Other information

Surface tension	:	Justification for data waiving not relevant

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	:	Highly flammable liquid and vapour. Reference to other sections: 10.4 & 10.5

10.2. Chemical stability

Stability	:	The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	:	Vapours can form explosive mixtures with air.

10.4. Conditions to avoid

Conditions to avoid	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Safe handling: see section 7

10.5. Incompatible materials

Incompatible materials	:	Oxidising substances, Strong acids, Halogens, Safe handling: see section 7

10.6. Hazardous decomposition products

Hazardous decomposition products	:	Reference to other sections: 5.2

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	:	Not classified (Based on available data, the classification criteria are not met.)

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

Benzene (71-43-2)	
LD50/oral/rat	> 2000 mg/kg
LD50/dermal/rabbit	> 5000 mg/kg
ATE CLP (vapours)	44,5 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation. pH: No data available
Serious eye damage/eye irritation	: Causes serious eye irritation. pH: No data available
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met.)
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer. LOAEL, Oral, Rat: 25 mg/kg bw/day
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met.) NOAEC, Inhalation: 960 mg/m ³ NOAEC, Developmental toxicity, Inhalation, Rat: 32 mg/m ³
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met.)
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.

Other information

Reference to other sections: 4.2, Symptoms related to the physical, chemical and toxicological characteristics, For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Benzene (71-43-2)	
LC50 fish 1	eco mg/l (96 h)
EC50 Daphnia 1	10 mg/l (48h)
ErC50 (algae)	100 mg/l (72 h)
LOEC (chronic)	1,6 mg/l
NOEC (chronic)	3 mg/l Invertebrates.
NOEC chronic fish	0,8 mg/l
NOEC chronic crustacea	3 mg/l
NOEC chronic algae	≈
Additional information	ErC10, Biomass, 72h, algae: 10 mg/l ErC10, Growth rate, 72h, algae: 34 mg/l IC50, 24h, micro-organisms: 13 mg/l

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

12.2. Persistence and degradability

Persistence and degradability : Readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation : Low potential
 Partition coefficient n-octanol/water : 2,13
 Bioconcentration factor (BCF) : < 10

12.4. Mobility in soil

Mobility :
 Surface tension : Justification for data waiving

12.5. Results of PBT and vPvB assessment

PBT/vPvB data :

12.6. Other adverse effects

Other information :

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product waste: : Do not allow contact with soil, surface or ground water.
 Dispose of empty containers and wastes safely.
 Safe handling: see section 7
 Refer to manufacturer/supplier for information on recovery/recycling
 Recycling is preferred to disposal or incineration
 If recycling is not possible, eliminate in accordance with local valid waste disposal regulations

 Contaminated packaging : Never use pressure to empty container.
 Do not pierce or burn, even after use.
 Handle contaminated packages in the same way as the substance itself.
 Dispose according to legislation.

 List of proposed waste codes/waste designations in accordance with EWC : This material and its container must be disposed of as hazardous waste.
 Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

14.1. UN number

UN number : 1114

14.2. UN proper shipping name

Proper Shipping Name : BENZENE
 Proper Shipping Name (IATA) : BENZENE
 Proper Shipping Name (IMDG) : BENZENE
 Proper Shipping Name (ADN) : BENZENE

14.3. Transport hazard class(es)

14.3.1. Overland transport

Class(es) : 3 - Flammable liquid
 Hazard identification number (Kemler No.) : 33
 Classification code : F1

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

ADR/RID-Labels : 3 - Flammable liquid



14.3.2. Inland waterway transport (ADN)

Class (UN) : 3

14.3.3. Transport by sea

Class or Division : 3 - flammable liquids

14.3.4. Air transport

Class or Division : 3 - flammable liquids

14.4. Packing group

Packing group : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special precautions for user : No data available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006 :

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008 : Benzene

5. Benzene : Benzene

28. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Carcinogen category 1A or 1B (Table 3.1) or Carcinogen category 1 or 2 (Table 3.2) and listed as follows: Carcinogen category 1A (Table 3.1)/Carcinogen category 1 (Table 3.2) listed in Appendix 1 Carcinogen category 1B (Table 3.1)/Carcinogen category 2 (Table 3.2) listed in Appendix 2 : Benzene

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

29. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Germ cell Mutagen category 1A or 1B (Table 3.1) or Mutagen category 1 or 2 (Table 3.2) and listed as follows: Mutagen category 1A (Table 3.1)/Mutagen category 1 (Table 3.2) listed in Appendix 3 Mutagen category 1B (Table 3.1)/Mutagen category 2 (Table 3.2) listed in Appendix 4 : Benzene

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not. : Benzene

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC. : none
 Authorisations : Not applicable

15.1.2. National regulations

DE : WGK : 3
 NL : ABM : 2 - May cause heritable genetic damage., 3 - May cause cancer.
 NL : NeR (Nederlandse emissie Richtlijn) : Organic substances in vapour or gaseous form

15.2. Chemical safety assessment

Chemical Safety Assessment : For this substance a chemical safety assessment has been carried out.

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Asp. Tox. 1	: Aspiration hazard, Category 1
Carc. 1A	: Carcinogenicity, Category 1A
Eye Irrit. 2	: Serious eye damage/eye irritation Category 2
Flam. Liq. 2	: Flammable liquids, Category 2
Muta. 1B	: Germ cell mutagenicity, hazard categories 1B
Skin Irrit. 2	: Skin corrosion/irritation, Category 2
STOT RE 1	: Specific target organ toxicity — Repeated exposure, Category 1
H225	: Highly flammable liquid and vapour.
H304	: May be fatal if swallowed and enters airways.
H315	: Causes skin irritation.
H319	: Causes serious eye irritation.
H340	: May cause genetic defects.
H350	: May cause cancer.
H372	: Causes damage to organs through prolonged or repeated exposure.
R11	: Highly flammable.
R36/38	: Irritating to eyes and skin.
R45	: May cause cancer.
R46	: May cause heritable genetic damage.
R48/23/24/25	: Toxic: danger of serious damage to health by prolonged exposure through inhalation,

Safety Data Sheet – Benzene

Revision Nr: 3
Issue date: 15/12/2014
Supersedes: 12/08/2011

in contact with skin and if swallowed.
 R65 : Harmful: may cause lung damage if swallowed.
 F : Highly flammable
 T : Toxic
 Xi : Irritant
 Xn : Harmful

Key literature references and sources : CSR
for data

Safety datasheet sections which have : 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16
been updated

Abbreviations and acronyms : ABM = Algemene beoordelingsmethodiek
 ADN = Accord Européen relatif au Transport International des Marchandises
 Dangereuses par voie de Navigation du Rhin
 ADR = Accord européen relatif au transport international des marchandises
 Dangereuses par Route
 CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
 IATA = International Air Transport Association
 IMDG = International Maritime Dangerous Goods Code
 LEL = Lower Explosive Limit/Lower Explosion Limit
 UEL = Upper Explosion Limit/Upper Explosive Limit
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 BTT = Breakthrough time (maximum wearing time)
 DMEL = Derived minimal effect level
 DNEL = Derived No Effect Level
 EC50 = Median Effective Concentration
 EL50 = Median effective level
 ErC50 = EC50 in terms of reduction of growth rate
 ErL50 = EL50 in terms of reduction of growth rate
 EWC = European Waste Catalogue
 LC50 = Median lethal concentration
 LD50 = Median lethal dose
 LL50 = Median lethal level
 NA = Not applicable
 NOEC = No observed effect concentration
 NOEL: no-observed-effect level
 NOELR = No observed effect loading rate
 NOAEC = No observed adverse effect concentration
 NOAEL = No observed adverse effect level
 N.O.S. = Not Otherwise Specified
 OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
 PNEC = Predicted No Effect Concentration
 Quantitative structure-activity relationship (QSAR)
 STOT = Specific Target Organ Toxicity
 TWA = time weighted average
 VOC = Volatile organic compounds
 WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water
 Management Act)

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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Safety Data Sheet – Benzene

Revision Nr:	3
Issue date:	15/12/2014
Supersedes:	12/08/2011

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SAFETY DATA SHEET

1. Identification

Product identifier	Benzo(b)fluoranthene		
Other means of identification			
Item	N-11165		
Recommended use	For Laboratory Use Only		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier/Distributor information			
Manufacturer			
Company name	Chem Service, Inc.		
Address	660 Tower Lane West Chester, PA 19380 United States		
Telephone	Toll Free	800-452-9994	
	Direct	610-692-3026	
Website	www.chemservice.com		
E-mail	info@chemservice.com		
Emergency phone number	Chemtrec US	800-424-9300	
	Chemtrec outside US	+1 703-527-3887	

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Carcinogenicity	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified.	
Label elements		



Signal word	Danger
Hazard statement	May cause cancer. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If exposed or concerned: Get medical advice/attention. Collect spillage.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Not applicable.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Benzo(b)fluoranthene		205-99-2	100

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Stop the flow of material, if this is without risk. Collect spillage. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Use personal protective equipment as required.

Skin protection	
Hand protection	Use personal protective equipment as required.
Other	Use personal protective equipment as required.
Respiratory protection	Use personal protective equipment as required.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Solid. Crystalline Solid
Color	Pale yellow
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	334.4 °F (168 °C)
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	0.0000001 kPa at 25 °C
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	6.6
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Molecular formula	C20-H12
Molecular weight	252.32 g/mol

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity	Not available.
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity	May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Benzo(b)fluoranthene (CAS 205-99-2) 2B Possibly carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Benzo(b)fluoranthene (CAS 205-99-2) Reasonably Anticipated to be a Human Carcinogen.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not available.
Chronic effects	Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity	Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Not available.

Partition coefficient n-octanol / water (log Kow)

6.6

Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information**DOT**

UN number	UN3077
UN proper shipping name	Environmentally hazardous substances, solid, n.o.s. (Benzo(b)fluoranthene RQ = 1 LBS)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33
Packaging exceptions	155
Packaging non bulk	213
Packaging bulk	240

IATA

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Benzo(b)fluoranthene)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Benzo(b)fluoranthene)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable.

DOT; IATA; IMDG**General information**

DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
One or more components are not listed on TSCA.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Benzo(b)fluoranthene (CAS 205-99-2) Listed.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Benzo(b)fluoranthene	205-99-2	100

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Benzo(b)fluoranthene (CAS 205-99-2)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)

Priority pollutant
Toxic pollutant

Safe Drinking Water Act (SDWA)

Not regulated.

US state regulations

US - New Jersey RTK - Substances: Listed substance

Benzo(b)fluoranthene (CAS 205-99-2)

US - Pennsylvania RTK - Hazardous Substances: Special hazard

Benzo(b)fluoranthene (CAS 205-99-2)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Benzo(b)fluoranthene (CAS 205-99-2)

US. Massachusetts RTK - Substance List

Benzo(b)fluoranthene (CAS 205-99-2)

US. New Jersey Worker and Community Right-to-Know Act

Benzo(b)fluoranthene (CAS 205-99-2)

US. Pennsylvania RTK - Hazardous Substances

Benzo(b)fluoranthene (CAS 205-99-2)

US. Pennsylvania Worker and Community Right-to-Know Law

Benzo(b)fluoranthene (CAS 205-99-2)

US. Rhode Island RTK

Benzo(b)fluoranthene (CAS 205-99-2)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzo(b)fluoranthene (CAS 205-99-2)

Listed: July 1, 1987

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 04-29-2015

Version # 01

NFPA ratings Health: 0
Flammability: 0
Instability: 0

Disclaimer

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

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This product is furnished FOR LABORATORY USE ONLY.

SAFETY DATA SHEET

Revision Date 17-Jan-2018

Revision Number 3

1. Identification

Product Name Cadmium

Cat No. : C3-500

CAS-No 7440-43-9
Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet**Company**

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable solids	Category 2
Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 2
Germ Cell Mutagenicity	Category 2
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	
Specific target organ toxicity - (repeated exposure)	Category 1
Target Organs - Kidney, Blood.	
Combustible dust	Yes

Label Elements**Signal Word**

Danger

Hazard Statements

Flammable solid
May form combustible dust concentrations in air
Fatal if inhaled
Harmful if swallowed
Harmful in contact with skin
May cause respiratory irritation
Suspected of causing genetic defects
May cause cancer
Suspected of damaging fertility. Suspected of damaging the unborn child
Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician

Skin

IF ON SKIN: Wash with plenty of soap and water
Wash contaminated clothing before reuse
Call a POISON CENTER or doctor/physician if you feel unwell

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Fire

Fight fire with normal precautions from a reasonable distance
Evacuate area

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects
WARNING. Cancer and Reproductive Harm - <https://www.p65warnings.ca.gov/>.

3. Composition/Information on Ingredients

Component	CAS-No	Weight %

Cadmium	7440-43-9	100

4. First-aid measures

General Advice	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Most important symptoms and effects	None reasonably foreseeable. . Kidney disorders: May cause harm to the unborn child: Blood disorders
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. Fine dust dispersed in air may ignite. Dust can form an explosive mixture in air. Pyrophoric properties of solids and liquids. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products

Highly toxic fumes

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
4	1	0	N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.
Environmental Precautions	Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. Handling and storage

Handling Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Use only under a chemical fume hood. Do not breathe vapors/dust. Do not ingest.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Store under an inert atmosphere.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Cadmium	TWA: 0.01 mg/m ³ TWA: 0.002 mg/m ³	Ceiling: 0.3 mg/m ³ Ceiling: 0.6 mg/m ³ (Vacated) STEL: 0.3 ppm TWA: 0.1 mg/m ³ TWA: 0.2 mg/m ³ TWA: 5 µg/m ³	IDLH: 9 mg/m ³	TWA: 0.01 mg/m ³ TWA: 0.002 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eyeface Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Long sleeved clothing.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

9. Physical and chemical properties

Physical State	Solid
Appearance	Silver
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	321 °C / 609.8 °F

Boiling Point/Range	765 °C / 1409 °F @ 760 mmHg
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	8.64 @ 25°C
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	Cd
Molecular Weight	112.40

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under recommended storage conditions. Moisture sensitive. Air sensitive.
Conditions to Avoid	Incompatible products. Excess heat. Avoid dust formation. Exposure to air or moisture over prolonged periods.
Incompatible Materials	Strong oxidizing agents, Strong acids, Sulfur oxides
Hazardous Decomposition Products	Highly toxic fumes
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cadmium	LD50 = 2330 mg/kg (Rat)	Not listed	LC50 = 25 mg/m ³ (Rat) 30 min

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Cadmium	7440-43-9	Group 1	Known	A2	X	A2

IARC: (International Agency for Research on Cancer)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

NTP: (National Toxicity Program)

ACGIH: (American Conference of Governmental Industrial Hygienists)

Known - Known Carcinogen

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mutagenic Effects	Possible risk of irreversible effects
Reproductive Effects	Possible risk of impaired fertility. May cause harm to the unborn child.
Developmental Effects	No information available.
Teratogenicity	No information available.
STOT - single exposure	Respiratory system
STOT - repeated exposure	Kidney Blood
Aspiration hazard	No information available
Symptoms / effects, both acute and delayed	Kidney disorders: May cause harm to the unborn child: Blood disorders
Endocrine Disruptor Information	No information available
Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information



Ecotoxicity

The product contains following substances which are hazardous for the environment. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Cadmium	Not listed	LC50: 0.0004 - 0.003 mg/L, 96h (Pimephales promelas) LC50: = 0.016 mg/L, 96h (Oryzias latipes) LC50: = 21.1 mg/L, 96h flow-through (Lepomis macrochirus) LC50: = 0.24 mg/L, 96h static (Cyprinus carpio) LC50: = 4.26 mg/L, 96h semi-static (Cyprinus carpio) LC50: = 0.002 mg/L, 96h (Cyprinus carpio) LC50: = 0.006 mg/L, 96h static (Oncorhynchus mykiss) LC50: = 0.003 mg/L, 96h	Not listed	EC50: = 0.0244 mg/L, 48h Static (Daphnia magna)

		flow-through (Oncorhynchus mykiss)		

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN2930
 Proper Shipping Name TOXIC SOLIDS, FLAMMABLE, ORGANIC, N.O.S.
 Proper technical name Cadmium
 Hazard Class 6.1
 Subsidiary Hazard Class 4.1
 Packing Group I

TDG

UN-No UN2930
 Proper Shipping Name TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.
 Hazard Class 6.1
 Subsidiary Hazard Class 4.1
 Packing Group I

IATA

UN-No UN2930
 Proper Shipping Name TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.
 Hazard Class 6.1
 Subsidiary Hazard Class 4.1
 Packing Group I

IMDG/IMO

UN-No UN2930
 Proper Shipping Name TOXIC SOLID, FLAMMABLE, ORGANIC, N.O.S.
 Hazard Class 6.1
 Subsidiary Hazard Class 4.1
 Packing Group I

15. Regulatory information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Cadmium	X	X	-	231-152-8	-		X	-	X	X	KE-0439 7

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Cadmium	7440-43-9	100	0.1

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Cadmium	-	-	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Cadmium	X		-

OSHA Occupational Safety and Health Administration
Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Cadmium	5 µg/m³ TWA 2.5 µg/m³ Action Level	-

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Cadmium	10 lb	-

California Proposition 65 This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Cadmium	7440-43-9	Carcinogen Developmental Male Reproductive	0.05 µg/day	Developmental Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Cadmium	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
Revision Date	17-Jan-2018
Print Date	17-Jan-2018
Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS



Fisher Scientific

Part of Thermo Fisher Scientific

SAFETY DATA SHEET

Revision Date 10-Feb-2015

Revision Number 1

1. Identification

Product Name Chrysene, 98%

Cat No. : AC224140010; AC224140050; AC224145000

Synonyms Benzo(a)phenanthrene; 1,2,5,6-Dibenzonaphthalene.; 1,2-Benzophenanthrene

Recommended Use Laboratory chemicals.

Uses advised against No Information available

Details of the supplier of the safety data sheet

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Entity / Business Name
Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number
For information **US** call: 001-800-ACROS-01
/ **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 /
Europe: +32 14 57 52 99
CHEMTREC Tel. No.**US**:001-800-424-9300 /
Europe:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Germ Cell Mutagenicity
Carcinogenicity

Category 2
Category 1B

Label Elements

Signal Word
Danger

Hazard Statements
Suspected of causing genetic defects
May cause cancer



Precautionary Statements
Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Response

IF exposed or concerned: Get medical attention/advice

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

3. Composition / information on ingredients

Component	CAS-No	Weight %
Chrysene	218-01-9	98

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes.
Inhalation	Move to fresh air.
Ingestion	Do not induce vomiting.
Most important symptoms/effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media	No information available
Flash Point	
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

None known

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
0

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions
Environmental Precautions

Ensure adequate ventilation. Use personal protective equipment.
See Section 12 for additional ecological information. Avoid release to the environment.
Collect spillage.

Methods for Containment and Clean Up No information available.

7. Handling and storage**Handling**

Ensure adequate ventilation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Chrysene		TWA: 0.2 mg/m ³	

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Chrysene			TWA:

Legend

OSHA - Occupational Safety and Health Administration

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment**Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	Light cream
Odor	No information available
Odor Threshold	No information available
pH	
Melting Point/Range	250 255 °C
Boiling Point/Range	°C @ 760 mmHg
Flash Point	
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Relative Density	No information available
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available

Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	C18H12
Molecular Weight	228.29

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	None under normal use conditions
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Component Information

Toxicologically Synergistic Products	No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	No information available
Sensitization	No information available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Chrysene	218-01-9	Group 2B	Not listed	A3	X	Not listed

Mutagenic Effects	No information available

Reproductive Effects	No information available.

Developmental Effects	No information available.

Teratogenicity	No information available.

STOT - single exposure	None known
STOT - repeated exposure	None known

Aspiration hazard	No information available

Symptoms / effects, both acute and delayed	No information available

Endocrine Disruptor Information	No information available

Other Adverse Effects	The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Chrysene	Not listed	Not listed	Not listed	1.9 mg/L EC50 = 2 h

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

Component	log Pow
Chrysene	5.91

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Chrysene - 218-01-9	U050	-

14. Transport information

DOT

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID, N.O.S.
 Hazard Class 9
 Packing Group III

TDG

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID, N.O.S.
 Hazard Class 9
 Packing Group III

IATA

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID, N.O.S.
 Hazard Class 9
 Packing Group III

IMDG/IMO

UN-No UN3077
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID, N.O.S.
 Hazard Class 9
 Packing Group III

15. Regulatory information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Chrysene	X	X	-	205-923-4	-		-	-	X	-	X

Legend:

X - Listed

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N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Chrysene	218-01-9	98	1.0 0.1

SARA 311/312 Hazardous Categorization

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Chrysene	-	-	X	X

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA

Not applicable

Component	Hazardous Substances RQs	CERCLA EHS RQs
Chrysene	100 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Chrysene	218-01-9	Carcinogen	0.35 µg/day	Carcinogen

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Chrysene	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class D2A Very toxic materials



16. Other information

Prepared By

Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Revision Date

10-Feb-2015

Print Date

10-Feb-2015

Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS

SAFETY DATA SHEET

Creation Date 28-Jul-2014

Revision Date 17-Jan-2018

Revision Number 4

1. Identification

Product Name Copper, Dust (Laboratory)

Cat No. : C431-500

CAS-No 7440-50-8
Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable solids	Category 2
Acute oral toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 3
Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Liver, Kidney.	
Combustible dust	Yes

Label Elements

Signal Word

Danger

Hazard Statements

Flammable solid
May form combustible dust concentrations in air
Toxic if inhaled
Harmful if swallowed
Causes serious eye irritation

Causes skin irritation
May cause respiratory irritation
May cause damage to organs through prolonged or repeated exposure



Precautionary Statements

Prevention

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Do not eat, drink or smoke when using this product

Response

Get medical attention/advice if you feel unwell

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician

Skin

IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Ingestion

Rinse mouth

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store in a well-ventilated place. Keep container tightly closed
Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Copper	7440-50-8	100

4. First-aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	No information available
Flash Point	Not applicable
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Flammable. Dust can form an explosive mixture in air. Fine dust dispersed in air may ignite. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Copper oxides

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
2

Flammability
2

Instability
1

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment. Remove all sources of ignition. Avoid dust formation. Avoid contact with skin, eyes and clothing. Avoid inhalation of the product. Keep people away from and upwind of spill/leak.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional ecological information.
Methods for Containment and Clean Up	Remove all sources of ignition. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. Handling and storage

Handling	Wear personal protective equipment. Ensure adequate ventilation. Use spark-proof tools and explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Copper	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³	(Vacated) TWA: 0.1 mg/m ³ TWA: 0.1 mg/m ³ TWA: 1 mg/m ³	IDLH: 100 mg/m ³ TWA: 1 mg/m ³ TWA: 0.1 mg/m ³	TWA: 0.2 mg/m ³ TWA: 1 mg/m ³ STEL: 2 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment**Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Powder Solid
Appearance	Red brown
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	1083 °C / 1981.4 °F
Boiling Point/Range	2595 °C / 4703 °F
Flash Point	Not applicable
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	1 mmHg @ 1628 °C
Vapor Density	No information available
Specific Gravity	8.92
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	Cu

Molecular Weight 63.54

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Moisture sensitive. Air sensitive.
Conditions to Avoid	Avoid dust formation. Incompatible products. Exposure to air. Exposure to moisture. Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Copper oxides
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information	The toxicological properties have not been fully investigated
LD50 Oral VALUE	472 mg/kg (Rat)
LC50 Inhalation (DUST) VALUE	0.73 mg/l (male rats)
Component Information	
Toxicologically Synergistic Products	No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	Irritating to eyes, respiratory system and skin
Sensitization	No information available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Copper	7440-50-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects Mutagenic effects have occurred in microorganisms.

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure Liver Kidney

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Copper	0.0426-0.0535 mg/L EC50 72 h 0.031-0.054 mg/L EC50 96 h	Onchorhynchys mykiss: LC50=0.15 mg/L 96h Cuprinus carpio: LC50=0.8 mg/L 96h	Not listed	EC50: = 0.03 mg/L, 48h Static (Daphnia magna)

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN3089
 Proper Shipping Name METAL POWDERS, FLAMMABLE, N.O.S.
 Proper technical name (COPPER)
 Hazard Class 4.1
 Packing Group III

TDG

UN-No UN3089
 Proper Shipping Name METAL POWDERS, FLAMMABLE, N.O.S.
 Hazard Class 4.1
 Packing Group III

IATA

UN-No UN3089
 Proper Shipping Name METAL POWDERS, FLAMMABLE, N.O.S.
 Hazard Class 4.1
 Packing Group III

IMDG/IMO

UN-No UN3089
 Proper Shipping Name METAL POWDERS, FLAMMABLE, N.O.S.
 Hazard Class 4.1
 Packing Group III

15. Regulatory information

All of the components in the product are on the following Inventory lists: Australia China Canada Europe TSCA Korea Philippines

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Copper	X	X	-	231-159-6	-		X	-	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Copper	7440-50-8	100	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Copper	-	-	X	X

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Copper	5000 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Copper	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant Y

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 28-Jul-2014
Revision Date 17-Jan-2018
Print Date 17-Jan-2018
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard

replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET

Version 4.11
Revision Date 10/12/2018
Print Date 10/19/2018

1. PRODUCT AND COMPANY IDENTIFICATION**1.1 Product identifiers**

Product name : Lead

Product Number : 391352
Brand : Aldrich

CAS-No. : 7439-92-1

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA

Telephone : +1 800-325-5832
Fax : +1 800-325-5052

1.4 Emergency telephone number

Emergency Phone # : +1-703-527-3887 (CHEMTREC)

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Acute toxicity, Oral (Category 4), H302
Carcinogenicity (Category 2), H351
Reproductive toxicity (Category 2), H361
Specific target organ toxicity - repeated exposure (Category 2), H373
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H302 Harmful if swallowed.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P391	Collect spillage.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula	: Pb
Molecular weight	: 207.20 g/mol
CAS-No.	: 7439-92-1
EC-No.	: 231-100-4

Hazardous components

Component	Classification	Concentration
Lead		
	Acute Tox. 4; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H351, H372, H410	90 - 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

No data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
	Remarks	See 1910.1025		
Lead	7439-92-1	TWA	0.05 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Confirmed animal carcinogen with unknown relevance to humans		
		TWA	0.05 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment Hematologic effects Peripheral Nervous System impairment Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Confirmed animal carcinogen with unknown relevance to humans		

		TWA	0.05 mg/m ³	USA. NIOSH Recommended Exposure Limits
		See Appendix C		

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
	-	Lead	200 µg/l	In blood	ACGIH - Biological Exposure Indices (BEI)
	Remarks	Not critical			

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: powder
b) Odour	No data available

c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: 327.4 °C (621.3 °F) - lit.
f) Initial boiling point and boiling range	1,740 °C (3,164 °F) - lit.
g) Flash point	Not applicable
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	No data available
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong acids

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Lead oxides

Other decomposition products - No data available

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

Rat

Cytogenetic analysis

Carcinogenicity

Limited evidence of carcinogenicity in animal studies

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Lead)

NTP: RAHC - Reasonably anticipated to be a human carcinogenThe reference note has been added by TD based on the background information of the NTP. (Lead)

OSHA: OSHA specifically regulated carcinogen (Lead)

Reproductive toxicity

Reproductive toxicity - Rat - Inhalation

Effects on Newborn: Biochemical and metabolic.

Reproductive toxicity - Rat - Oral

Effects on Newborn: Behavioral.

Reproductive toxicity - Mouse - Oral

Effects on Fertility: Female fertility index (e.g., # females pregnant per females mated). Effects on Fertility: Pre-implantation mortality (e.g., reduction in numbe corpora lutea).

May damage fertility. May damage the unborn child.

Developmental Toxicity - Rat - Inhalation

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Blood and lymphatic system (including spleen and marrow).

Developmental Toxicity - Rat - Oral

Specific Developmental Abnormalities: Blood and lymphatic system (including spleen and marrow). Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Developmental Toxicity - Rat - Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.

Developmental Toxicity - Mouse - Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

No data available

Additional Information

RTECS: OF7525000

anemia

Stomach - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish	mortality LOEC - Oncorhynchus mykiss (rainbow trout) - 1.19 mg/l - 96.0 h LC50 - Micropterus dolomieu - 2.2 mg/l - 96.0 h mortality NOEC - Salvelinus fontinalis - 1.7 mg/l - 10.0 d
Toxicity to daphnia and other aquatic invertebrates	mortality LOEC - Daphnia (water flea) - 0.17 mg/l - 24 h mortality NOEC - Daphnia (water flea) - 0.099 mg/l - 24 h
Toxicity to algae	mortality EC50 - Skeletonema costatum - 7.94 mg/l - 10 d

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

Bioaccumulation	Oncorhynchus kisutch - 2 Weeks - 150 µg/l Bioconcentration factor (BCF): 12

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

UN number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Lead)
Reportable Quantity (RQ): 10 lbs
Poison Inhalation Hazard: No

IMDG

UN number: 3077 Class: 9 Packing group: III EMS-No: F-A, S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Lead)
Marine pollutant: yes

IATA

UN number: 3077 Class: 9 Packing group: III
Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Lead)

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

15. REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Lead	7439-92-1	2015-11-23

SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
Lead	7439-92-1	2015-11-23

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
Lead	7439-92-1	2015-11-23

	CAS-No.	Revision Date
Lead	7439-92-1	2015-11-23

New Jersey Right To Know Components

	CAS-No.	Revision Date
Lead	7439-92-1	2015-11-23

California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

	CAS-No.	Revision Date
Lead	7439-92-1	2009-02-01

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

	CAS-No.	Revision Date
Lead	7439-92-1	2009-02-01

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Carc.	Carcinogenicity
H302	Harmful if swallowed.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.

Further information

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Preparation Information

Sigma-Aldrich Corporation

Product Safety – Americas Region

1-800-521-8956

Version: 4.11

Revision Date: 10/12/2018

Print Date: 10/19/2018

SAFETY DATA SHEET

Creation Date 20-Aug-2014

Revision Date 17-Jan-2018

Revision Number 3

1. Identification

Product Name Mercury (Certified ACS)
Cat No. : M141-1LB; M141-6LB
Synonyms Colloidal mercury; Hydrargyrum; Metallic mercury
Recommended Use Laboratory chemicals.
Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Corrosive to metals	Category 1
Acute Inhalation Toxicity - Vapors	Category 2
Reproductive Toxicity	Category 1B
Specific target organ toxicity - (repeated exposure)	Category 1
Target Organs - Central nervous system (CNS), Kidney.	

Label Elements

Signal Word

Danger

Hazard Statements

May be corrosive to metals
Fatal if inhaled
May damage the unborn child
Causes damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Do not get in eyes, on skin, or on clothing
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection

Response

IF exposed or concerned: Get medical attention/advice

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician

Skin

Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Gently wash with plenty of soap and water
Remove/Take off immediately all contaminated clothing
Wash contaminated clothing before reuse

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects

WARNING. Reproductive Harm - <https://www.p65warnings.ca.gov/>.

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Mercury	7439-97-6	100

4. First-aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Immediate medical attention is required.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion

Do not induce vomiting. Call a physician or Poison Control Center immediately.

Most important symptoms and effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Very toxic. Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Mercury oxide Highly toxic fumes

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
4	0	0	N/A

6. Accidental release measures

Personal Precautions	Wear self-contained breathing apparatus and protective suit. Evacuate personnel to safe areas. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional ecological information.
Methods for Containment and Clean Up	Wear self-contained breathing apparatus and protective suit. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Do not ingest.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Mercury	TWA: 0.025 mg/m ³ Skin	(Vacated) TWA: 0.05 mg/m ³ Ceiling: 0.1 mg/m ³ (Vacated) STEL: 0.03 mg/m ³ Skin (Vacated) Ceiling: 0.1 mg/m ³	IDLH: 10 mg/m ³ TWA: 0.05 mg/m ³ Ceiling: 0.1 mg/m ³	TWA: 0.05 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Silver
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-38.87 °C / -38 °F
Boiling Point/Range	356.72 °C / 674.1 °F
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	0.002 mmHg @ 25 °C
Vapor Density	7.0
Specific Gravity	13.59 (H ₂ O=1)
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	Hg
Molecular Weight	200.59

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Excess heat.
Incompatible Materials	Strong oxidizing agents, Ammonia, Metals, Halogens

Hazardous Decomposition Products Mercury oxide, Highly toxic fumes

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information No acute toxicity information is available for this product

Component Information

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Mercury	7439-97-6	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects May cause harm to the unborn child.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure Central nervous system (CNS) Kidney

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

This product contains the following substance(s) which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Mercury	Not listed	0.9 mg/L LC50 96h 0.18 mg/L LC50 96h 0.16 mg/L LC50 96h 0.5 mg/L LC50 96h	Not listed	EC50: = 5.0 µg/L, 96h (water flea)

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal considerations

Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Mercury - 7439-97-6	U151	-

14. Transport information

DOT

UN-No UN2809
 Proper Shipping Name MERCURY
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group III

TDG

UN-No UN2809
 Proper Shipping Name MERCURY
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group III

IATA

UN-No UN2809
 Proper Shipping Name MERCURY
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group III

IMDG/IMO

UN-No UN2809
 Proper Shipping Name MERCURY
 Hazard Class 8
 Subsidiary Hazard Class 6.1
 Packing Group III

15. Regulatory information

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Mercury	X	X	-	231-106-7	-		X	-	X	X	X

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations**TSCA 12(b)**

Component	TSCA 12(b)
Mercury	Section 5

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Mercury	7439-97-6	100	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Mercury	-	-	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Mercury	X		-

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Mercury	1 lb	-

California Proposition 65 This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Mercury	7439-97-6	Developmental	-	Developmental

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Mercury	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 20-Aug-2014

Revision Date 17-Jan-2018

Print Date 17-Jan-2018

Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS



HEALTH AND SAFETY WORK PLAN

APPENDIX D Heat/Cold Stress Protocols

HEAT STRESS

Heat Stress (Hyperthermia)

Heat stress is the body's inability to regulate the core temperature. A worker's susceptibility to heat stress can vary according to his/her physical fitness, degree of acclimation to heat, humidity, age and diet.

1. Prior to site activity, the field team leader may make arrangements for heat stress monitoring (i.e., monitoring heart rate, body temperature, and body water loss) during actual site work if conditions warrant. In addition, the FTL is to ensure that each team member has been acclimatized to the prevailing environmental conditions, that personnel are aware of the signs and symptoms of heat sickness, that they have been adequately trained in first aid procedures, and that there are enough personnel on-site to rotate work assignments and schedule work during hours of reduced temperatures. Personnel should not consume alcoholic or caffeinated beverages but rather drink moderate levels of an electrolyte solution and eat well prior to commencing site work.
2. Although there is no specific test given during a baseline physical that would identify a person's intolerance to heat, some indicators are tobacco or medication use, dietary habits, body weight, and chronic conditions such as high blood pressure or diabetes.
3. *Heat cramps*, caused by profuse perspiration with inadequate fluid intake and salt replacement, most often afflict people in good physical condition who work in high temperature and humidity. Heat cramps usually come on suddenly during vigorous activity. Untreated, heat cramps may progress rapidly to heat exhaustion or heat stroke. First aid treatment: remove victim to a cool place and replace lost fluids with water.
4. Thirst is not an adequate indicator of heat exposure. Drinking fluid by itself does not indicate sufficient water replacement during heat exposure. A general rule, the amount of water administered should replace the amount of water lost, and it should be administered at regular intervals throughout the day. For every half pound of water lost, 8 ounces of water should be ingested. Water should be replaced by drinking 2 – 4 ounce servings during every rest period. A recommended alternative to water is an electrolyte drink split 50/50 with water.

5. *Heat exhaustion* results from salt and water loss along with peripheral pooling of blood. Like heat cramps, heat exhaustion tends to occur in persons in good physical health who are working in high temperatures and humidity. Heat exhaustion may come on suddenly as dizziness and collapse. Untreated, heat exhaustion may progress to heat stroke.
6. *Treatment for heat exhaustion:* Move the victim to a cool environment (e.g. air-conditioned room/car), lay victim down and fan him/her. If the air-conditioning is not available, remove the victim to a shaded area, remove shirt, and fan. If symptoms do not subside within an hour, notify 911 to transport to hospital.
7. *Heat stroke* results from the body's inability to dissipate excess heat. A true medical emergency that requires immediate care, it usually occurs when one ignores the signs of heat exhaustion and continues strenuous activities. Working when the relative humidity exceeds 60% is a particular problem. Workers in the early phase of heat stress may not be coherent or they will be confused, delirious or comatose. Changes in behavior, irritability and combativeness are useful early signs of heat stroke.
8. *Treatment of heat stroke:* Move the victim to a cool, air-conditioned environment. Place victim in a semi-reclined position with head elevated and strip to underclothing. Cool victim as rapidly as possible, applying ice packs to the arms and legs and massaging the neck and torso. Spray victim with tepid water and constantly fan to promote evaporation. Notify 911 to transport to hospital as soon as possible.

TABLE 1

SYMPTOMS OF HEAT STRESS

Heat cramps are caused by heavy sweating with inadequate fluid intake. Symptoms include;

- Muscle cramps
- Cramps in the hands, legs, feet and abdomen

Heat exhaustion occurs when body organs attempt to keep the body cool. Symptoms include;

• Pale, cool moist skin	• Rapid heart rate
• Core temperature elevated 1-2°	• Heavy sweating
• Thirst	• Dizziness
• Anxiety	• Nausea

Heat stroke is the most serious form of heat stress. Immediate action must be taken to cool the body before serious injury and death occur. Symptoms are;

- Red, hot, dry skin
- Lack of perspiration
- Seizures
- Dizziness and confusion
- Strong, rapid pulse
- Core temperature of 104° or above
- Coma

TABLE 2

HEAT STRESS INDICATORS

Heat stress indicator	When to measure	If Exceeds...	Action
Heart rate (pulse)	Beginning of rest period	110 beats per minute	Shorten next work period by 33%
Oral temperature	Beginning of rest period	99°F (after thermometer is under tongue for 3 minutes) 100.6°F	Shorten next work period by 33% Prohibit work in impermeable clothing
Body weight	1. Before workday begins (a.m.) 2. After workday ends (p.m.)		Increase fluid intake

COLD STRESS

Cold stress (Hypothermia)

In hypothermia the core body temperature drops below 95°F. Hypothermia can be attributed to a decrease in heat production, increased heat loss or both.

Prevention

Institute the following steps to prevent overexposure of workers to cold:

1. Maintain body core temperature at 98.6°F or above by encouraging workers to drink warm liquids during breaks (preferably not coffee) and wear several layers of clothing that can keep the body warm even when the clothing is wet.
2. Avoid frostbite by adequately covering hands, feet and other extremities. Clothing such as insulated gloves or mittens, earmuffs and hat liners should be worn. To prevent contact frostbite (from touching metal and cold surfaces below 20°F), workers should wear gloves. Tool handles should be covered with insulating material.
3. Adjust work schedules to provide adequate rest periods. When feasible, rotate personnel and perform work during the warmer hours of the day.
4. Provide heated shelter. Workers should remove their outer layer(s) of clothing while in the shelter to allow sweat to evaporate.
5. In the event that wind barriers are constructed around an intrusive operation (such as drilling), the enclosure must be properly vented to prevent the buildup of toxic or explosive gases or vapors. Care must be taken to keep a heat source away from flammable substances.
6. Using a wind chill chart such as the one in Table 3, obtain the equivalent chill temperature (ECT) based on actual wind speed and temperature. Refer to the ECT when setting up work warm-up schedules, planning appropriate clothing, etc. Workers should use warming shelters at regular intervals at or below an ECT of 20°F. For exposed skin, continuous exposure should not be permitted at or below an ECT of -25°F.

Frostbite

Personnel should be aware of symptoms of frostbite/hypothermia. If the following symptoms are noticed in any worker, he/she should immediately go to a warm shelter.

Condition	Skin Surface	Tissue Under Skin	Skin Color
Frostnip	Soft	Soft	Initially red, then white
Frostbite	Hard	Soft	White and waxy
Freezing	Hard	Hard	Blotchy, white to yellow-gray to gray

1. *Frostnip* is the incipient stage of frostbite, brought about by direct contact with a cold object or exposure of a body part to cool/cold air. Wind chill or cold water also can be major factors. This condition is not serious. Tissue damage is minor and the response to care is good. The tip of the nose, tips of ears, upper cheeks and fingers (all areas generally exposed) are most susceptible to frostnip.
2. *Treatment of frostnip:* Care for frostnip by warming affected areas. Usually the worker can apply warmth from his/her bare hands, blow warm air on the site, or, if the fingers are involved, hold them in the armpits. During recovery, the worker may complain of tingling or burning sensation, which is normal. If the condition does not respond to this simple care, begin treatment for frostbite.
3. *Frostbite:* The skin and subcutaneous layers become involved. If frostnip goes untreated, it becomes superficial frostbite. This condition is serious. Tissue damage may be serious. The worker must be transported to a medical facility for evaluation. The tip of the nose, tips of ears, upper cheeks and fingers (all areas generally exposed) are most susceptible to frostbite. The affected area will feel frozen, but only on the surface. The tissue below the surface must still be soft and have normal response to touch. **DO NOT** squeeze or poke the tissue. The condition of the deeper tissues can be determined by gently palpating the affected area. The skin will turn mottled or blotchy. It may also be white and then turn grayish-yellow.
4. *Treatment of frostbite:* When practical, transport victim as soon as possible. Get the worker inside and keep him/her warm. Do not allow any smoking or alcohol consumption. Thaw frozen parts by immersion, re-warming in a 100°F to 106°F water bath. Water temperature will drop rapidly, requiring additional warm water throughout the process. Cover the thawed part with a dry sterile dressing. Do not puncture or drain any blisters.

NOTE: Never listen to myths and folk tales about the care of frostbite. *Never* rub a frostbitten or frozen area. *Never* rub snow on a frostbitten or frozen area. Rubbing the area may cause

serious damage to already injured tissues. Do not attempt to thaw a frozen area if there is any chance it will be re-frozen.

5. *General cooling/Hypothermia:* General cooling of the body is known as systemic hypothermia. This condition is not a common problem unless workers are exposed to cold for prolonged periods of time without any shelter.

Body Temperature	°C	Symptoms
99-96	37-35.5	Intense, uncontrollable shivering
95-91	35.5-32.7	Violent shivering persists. If victim is conscious, he has difficulty speaking.
90-86	32-30	Shivering decreases and is replaced by strong muscular rigidity. Muscle coordination is affected. Erratic or jerkey movements are produced. Thinking is less clear. General comprehension is dulled. There may be total amnesia. The worker is generally still able to maintain the appearance of psychological contact with his surroundings.
85-81	29.4-27.2	Victim becomes irrational, loses contact with his environment, and drifts into a stuporous state. Muscular rigidity continues. Pulse and respirations are slow and the worker may develop cardiac arrhythmias.
80-78	26.6-18.5	Victim becomes unconscious. He does not respond to the spoken word. Most reflexes cease to function. Heartbeat becomes erratic
Below 78	25.5	Cardiac and respiratory centers of the brain fail. Ventricular fibrillation occurs; probably edema and hemorrhage in the lungs; death.

6. *Treatment of hypothermia:* Keep worker dry. Remove any wet clothing and replace with dry clothes, or wrap person in dry blankets. Keep person at rest. Do not allow him/her to move around. Transport the victim to a medical facility as soon as possible.

TABLE 3⁽¹⁾
COOLING POWER OF WIND ON EXPOSED FLESH EXPRESSED
AS AN EQUIVALENT TEMPERATURE (UNDER CALM CONDITIONS)

Estimated wind Speed (in mph)	Actual Temperature Reading (°F)P											
	50	40	30	20	10	0	10	20	30	40	50	60
	Equivalent Chill Temperature (°F)											
Calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	15	4	-9	-24	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-32	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-121
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-51	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-146
(Wind speeds greater than 40 mph have little additional effect.)	LITTLE DANGER in < hr with dry skin. Maximum danger of false sense of security.			INCREASING DANGER Danger from freezing of exposed flesh within one minute				GREAT DANGER may freeze within 30 seconds.				Flesh
	Trench foot and immersion foot may occur at any point on this chart											

Developed by U.S. Army Research Institute of Environmental Medicine, Natick, MA.

(1) Reproduced from American Conference of Governmental Industrial Hygienists, Threshold Limit Values and Biological Exposure Indices for 1985-1986, p.01.



HEALTH AND SAFETY WORK PLAN

APPENDIX E Field Accident Report



FIELD ACCIDENT REPORT

This report is to be filled out by the designated Site Safety Officer after EVERY accident.

PROJECT NAME: _____ PROJECT. NO.: _____

Date of Accident: _____ Time: _____ Report By: _____

Type of Accident (Check One):

() Vehicular () Personal () Property

Name of Injured: _____ DOB or Age _____

How Long Employed: _____

Names of Witnesses: _____

Description of Accident: _____

Action Taken: _____

Did the Injured Lose Any Time ☐ _____ How Much (Days/Hrs.) ☐ _____

Was Safety Equipment in Use at the Time of the Accident (Hard Hat, Safety Glasses, Gloves, Safety Shoes, etc.) ☐ _____

(If not, it is the EMPLOYEE'S sole responsibility to process his/her claims through his/her Health and Welfare Fund.)

INDICATE STREET NAMES, DESCRIPTION OF VEHICLES, AND NORTH ARROW



APPENDIX B

COMMUNITY AIR MONITORING PLAN

Appendix 1A

New York State Department of Health Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

APPENDIX B

SITE PHOTOGRAPHS





Septic Tank S-3



Storm Drain S-2



Storm Drain S-2 Interior



Washout Area S-16A



Floor Drain S-16



Floor Drain S-17



Structure S-17DW



Structure S-17OF



Floor Drain S-18



Burn Pit Excavation

APPENDIX C

SCDHS SAMPLING DOCUMENTATION (2019)



Appendix A

Suffolk County Resolution

No. 1065-2018

Introduced by Presiding Officer Gregory and Legislators Fleming, Hahn

**RESOLUTION NO. 1065 -2018, DIRECTING THE
DEPARTMENT OF HEALTH SERVICES TO CONDUCT SOIL
AND GROUNDWATER TESTING AT THE BOMARC
PROPERTY, WESTHAMPTON**

WHEREAS, the County of Suffolk owns 186 acres of land in Westhampton which is commonly referred to as the BOMARC property; and

WHEREAS, at one time this property was owned by the federal government; 58 silos were constructed to store 46 foot long liquid fueled surface-to-air missiles; and

WHEREAS, since the County took ownership of this property it has been used for myriad purposes, including the storage of impounded vehicles, a Police Department shooting range and a fireworks pit; and

WHEREAS, Resolution No. 1015-2017 established a task force to develop a comprehensive plan for the BOMARC property; and

WHEREAS, Resolution No. 568-2018 directed the issuance of a Request for Expression of Interest to develop the BOMARC property; and

WHEREAS, in order to expedite the productive use of the BOMARC property, the County of Suffolk should take steps to determine if past and current uses of the property have created any environmental or health issues that should be addressed by the County; now, therefore be it

1st RESOLVED, that the Suffolk County Department of Health Services is hereby authorized, empowered and directed to survey the BOMARC property and initiate preliminary soil and groundwater testing at the site to determine if there are any health and/or environmental issues that may require remediation; and be it further

2nd RESOLVED, that the Department of Health Services will undertake testing by April 30, 2019 and report its findings to each member of the County Legislature, in writing, by September 30, 2019; and be it further

3rd RESOLVED, that the Department's report will describe where testing was conducted and how the Department determined the test locations; and be it further

4th RESOLVED, that this Legislature, being the State Environmental Quality Review Act (SEQRA) lead agency, hereby finds and determines that this resolution constitutes a Type II action pursuant to Section 617.5(c)(24) and (27) of Title 6 of the NEW YORK CODE OF RULES AND REGULATIONS (6 NYCRR) and within the meaning of Section 8-0109(2) of the NEW YORK ENVIRONMENTAL CONSERVATION LAW as basic data collection and research and concurrent environmental study, and the Suffolk County Council on Environmental Quality (CEQ) is hereby directed to circulate any appropriate SEQRA notices of determination of non-applicability or non-significance in accordance with this resolution.

DATED: December 4, 2018

APPROVED BY:

/s/ Steven Bellone
County Executive of Suffolk County

Date: December 17, 2018

Appendix B

Photo Documentation

Office of Pollution Control

Sample Locations



Sample S-1

Sample Type: Storm-Water Drywell

Location: South Parking Lot

Description: Brown soil, no odor

Detected Compounds: SVOCs



Sample S-2

Sample Type: Storm-Water Drywell

Location: South Parking Lot

Description: Brown soil, no odor, well contained various debris.

Detected Compounds: SVOCs, PCBs



Sample: S-3

Sample Type: Sanitary Septic Tank

Location: Wooded area, south

Description: sludge, petroleum odor

Detected Compounds: SVOCs, VOCs, Heavy metals



Sample: S-4

Sample Type: Surface Soil

Location: Gas canister storage area

Description: Stained soil, petroleum odor

Detected Compounds: SVOCs, VOCs, Heavy metals



Sample: S-5

Sample Type: Storm-Water Drywell

Location: Bldg. C0209 driveway

Description: tan sand, no odor

Detected Compounds: SVOCs



Sample: S-6

Sample Type: Storm-Water Drywell

Location: Bldg. C0209

Description: brown sand, no odor

Detected Compounds: SVOCs, Heavy metals



Sample: S-7

Sample Type: Surface

Location: Bldg. C0210, parking lot

Description: minor petroleum odor

Detected Compounds: SVOCs, VOCs, Metals, PCBs



Sample: S-8

Sample Type: Surface

Location: Bldg. C0215, concrete pad

Description: brown soil, no odor

Detected Compounds: SVOCs, VOCs, PCBs



Sample: S-9

Sample Type: Storm-Water Drywell, composite of 4 wells

Location: Grass area

Description: brown soil, no odor

Detected Compounds: SVOCs



Sample: S-10

Sample Type: Surface

Location: Fireworks Burn Box, Silo 265

Description: grey ash

Detected Compounds: SVOCs, VOCs, Heavy metals



Sample: S-11

Sample Type: Surface

Location: S/W corner of Silo 261

Description: heavy petroleum odor

Detected Compounds: SVOCs, VOCs, Heavy metals, PCBs & Pesticides



Sample: S-12

Sample Type: Surface

Location: Between Silo 231 & Silo 233

Description: Brown soil/sand mix

Detected Compounds: PCBs & Pesticides



Sample: S-13

Sample Type: Surface

Location: Between Silo 243 & Silo 245

Description: Brown soil/sand mix

Detected Compounds: SVOCs, PCBs & Pesticides



Sample: S-14

Sample Type: Surface

Location: S/W corner of Silo 242

Description: Brown soil/sand mix

Detected Compounds: SVOCs



Sample: S-15

Sample Type: Cesspool

Location: Bldg. C0960 Firing Range

Description: Sludge, minor petroleum odor

Detected Compounds: VOCs



Sample: S-16

Sample Type: Floor Drain

Location: Bldg. C0216

Description: Sandy, no odor

Detected Compounds: SVOCs, VOCs, Heavy Metals, PCBs



Sample: S-17

Sample Type: Floor Drain

Location: Bldg. C0206

Description: Brown soil, no odor

Detected Compounds: SVOCs, VOCs, Heavy Metals, PCBs



Sample: S-18

Sample Type: Floor Drain

Location: Bldg. C0205

Description: Sandy soil, no odor

Detected Compounds: Heavy Metals, PCBs



Sample: S-19

Sample Type: Surface

Location: Firing range, front wall

Description: Sandy soil, no odor

Detected Compounds: Heavy Metals, PCBs



Sample: S-20

Sample Type: Surface

Location: Firing range, ground

Description: Sandy soil, no odor

Detected Compounds: SVOCs, VOCs, Heavy Metals, PCBs



Sample: S-21

Sample Type: Surface

Location: Firing range, rear collection point

Description: Sandy soil, no odor

Detected Compounds: Heavy Metals, PCBs



Sample: S-22

Sample Type: Sludge

Location: Former fireworks burn pit

Description: Heavy petroleum odor, evidence of dumping

Detected Compounds: SVOCs, VOCs, Heavy Metals, PCBs



Sample: S-23

Sample Type: Background

Location: West point on property

Description: Brown soil, no odor

Detected Compounds: VOCs, Pesticides



Sample: S-24

Sample Type: Background

Location: East point on property

Description: Brown soil, no odor

Detected Compounds: VOCs, Pesticides



Sample: S-25

Sample Type: Background

Location: South point on property

Description: Brown soil, no odor

Detected Compounds: None

Appendix C

Regulatory Guidance Documents

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES

**STANDARD OPERATING PROCEDURE
FOR THE ADMINISTRATION OF ARTICLE 12
OF THE SUFFOLK COUNTY SANITARY CODE**

ARTICLE 12 ~~ SOP NO.9-95

"PUMPOUT AND SOIL CLEANUP CRITERIA"

Revised August, 2010
Effective January 1, 2011

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES

ARTICLE 12 ~~ SOP NO. 9-95

PUMPOUT AND SOIL CLEANUP CRITERIA

STATEMENT OF PURPOSE

Article 12 of the Suffolk County Sanitary Code, requires the owner, operator or any other person in possession or control of an industrial facility to report to the Department of Health Services (the Department) any unauthorized discharge, leak or spill of toxic or hazardous material within two hours of knowledge of that discharge, leak or spill. Knowledge of a spill includes information generated during Phase I and Phase II Environmental Assessments, such as results from groundwater and soil sampling. In addition, Article 12 requires the owner, or any other person in possession or control of the source of the discharge, and/or the owner of the property onto which the discharge has occurred, to immediately cease the discharge and to reclaim, recover and dispose of the discharged material and to restore the environment to the condition that existed prior to the discharge.

Since it is not always possible to achieve predischage conditions, this document was generated to provide guidance when evaluating the potential impact of a discharge on the environment and to provide assistance when determining if, and to what extent, contaminated liquids and/or solids must be removed from sanitary systems, storm drains, or other locations at a facility. It was generated to be applicable to most situations; however, the Department reserves the right to apply additional requirements when warranted by conditions encountered at a particular site.

This document is not meant to represent approval by the Department of any remedial activities, or to represent the Department's determination that a site either does or does not require remediation. All spills, leaks, or discharges of toxic or hazardous materials, as defined by Section 760-1203 of the Sanitary Code, must be reported to the Office of Pollution Control, which will have the sole authority to determine what, if any, cleanup will be required.

When assessing the need for cleanup at a specific site, in addition to the potential for migration of contaminants to groundwater the Department will consider all human health and environmental factors that are available, including the potential for direct exposure via dermal absorption, inhalation or ingestion pathways. The soil cleanup objectives contained in this document do not account for potential soil vapor or soil vapor intrusion impacts. In many cases, site specific cleanup criteria may vary from the values listed in this SOP.

Be advised that, in addition to meeting the Suffolk County Department of Health Services (SCDHS) requirements, the responsible party must meet the requirements of the New York State Department of Environmental Conservation (NYSDEC) and the United States Environmental Protection Agency (USEPA).

CRITERIA

As stated in Articles 7 and 12 Suffolk County Sanitary Code, it is the policy of the County of Suffolk to maintain its water resources as near to their natural condition of purity as reasonably possible. As such, the goal of any remedial action required by this Department is to return the site to predischARGE conditions. If this is not possible, at a minimum, the cleanup must ensure reasonable protection for public health and the environment.

Appendices A, B and C contain Action Levels and Cleanup Objectives for Volatile Organic Compounds (VOCs), metals and Semi-Volatile Organic Compounds (Semi-VOCs), respectively. When the concentration of a single contaminant, or a class of contaminants such as total petroleum hydrocarbons, meets, or exceeds, the "Action Level", a cleanup, or other action, is required. Under most conditions, the contaminant concentration in the soil after remediation should not exceed the values indicated in the "Cleanup Objective" column.

Cleanup Objectives for VOCs and Semi-VOCs were established in a manner consistent with the New York State Department of Environmental Conservation's Technical and Administrative Guidance Memorandum, (TAGM) HWR-94-4046. Where measured Soil Partitioning Coefficients (K_{oc}) could be found, they were used. If not, the K_{oc} was calculated based on the compound's Octanol / Water Partitioning Coefficient (K_{ow}). If the K_{ow} was not available, the K_{oc} was estimated based on solubility. Individual VOC and Semi-VOC Cleanup Objectives were capped at a maximum allowable concentration of 100,000 ppb.

Cleanup Objectives for metals have been revised from those listed in the original document to more closely conform to the groundwater protection cleanup objectives contained in 6NYCRR Part 375. Cleanup Objectives for metals assume a 20:1 Dilution Attenuation Factor (DAF), consistent with Part 375. Action Levels for metals assume a DAF of 100.

In order to perform a proper environmental evaluation, the Department may require additional analysis to be performed based on the chemicals stored, or in use, at a site. This may include Total Petroleum Hydrocarbons (TPH), cyanides, phenols, PCBs, pesticides and/or a more extensive list of metals, VOCs and/or Semi-VOCs. Cleanup objectives and action levels for these additional parameters will be established on a case by case basis.

Although TPH analysis is not normally required by this Department, if the analysis is performed on a sample and the TPH concentration is greater than, or equal to, 500 ppm, the Department will require the responsible party to analyze the sample for Semi-VOCs via EPA Method 8270. The results of this analysis will then be compared with the Semi-VOC values listed in Appendix C.

Liquid endpoint samples must be collected if groundwater is encountered during a cleanup operation. If the concentration of VOCs, Semi-VOCs or metals in the sample exceeds 100 times the contaminant's discharge standard, the Department will require a groundwater sample to be collected immediately downgradient of the point of contamination to determine if there has been an impact on the groundwater. If significant groundwater contamination is found, a more extensive groundwater investigation will be required. **The Department reserves the right to require the installation of monitoring well(s) at lower contaminant levels based on the type**

of contaminant encountered and other site specific conditions.

Other factors to be considered when evaluating a site :

In many instances, additional information is available which the Department will utilize when establishing cleanup goals, or action levels, for a specific site. Some factors that are considered when reviewing site specific conditions to decide if cleanup goals should be set higher or lower than the guidance values listed in this document include, but are not be limited to:

<u>Site history</u> -	Past discharge practices, as well as the extent and type of discharge discovered, will be considered.
<u>Type of Contaminant</u> -	Physical and/or chemical characteristics of a contaminant will be considered. For example, the department may require groundwater sampling, and/or a soil vapor investigation to be undertaken, due to high concentrations of tetrachloroethene and/or its breakdown products detected in initial samples even though soil cleanup objectives were met in post remediation samples.
<u>Site location</u> -	Facilities located in water sensitive areas or near drinking water wells may require more stringent cleanup objectives.
<u>Distance to groundwater</u> -	Since this guidance document assumes a 100 fold reduction in contaminant concentrations between the source area and the drinking water supply, if the distance between the contamination and the groundwater is less than three feet, or a drinking water supply well is located nearby, action levels or cleanup goals may be lower than the guidance values listed in this document.
<u>Monitoring well data</u> -	If groundwater contamination can be attributed to the discharge, more extensive remediation or investigation may be required.
<u>Future use of site</u> -	Although it is not this department's policy to allow pockets of contamination to remain in the ground throughout the county, in certain cases, where the cleanup objectives listed in this document can not be achieved, higher concentrations of contaminants may be allowed to remain in place if the site can be stabilized in a manner acceptable to the Department. In these instances, land, or deed, restrictions may be required.
<u>Direct Human Exposure</u> -	If ingestion, inhalation or dermal contact is a concern, other soil screening guidance documents should be used to formulate a cleanup goal, especially if that value is lower than the "Cleanup Objective" listed in this document.

CLEANUP OBJECTIVES AND ACTION LEVELS
FOR VOLATILE ORGANICS (UG/KG)

<u>Contaminant</u>	<u>Action Levels (ppb)</u>	<u>Cleanup Objectives (ppb)</u>
Acetone	**	**
Acrolein	100	50
Acrylonitrile	100	50
Allyl Chloride	400	200
t-Amyl Methyl Ether	4,000	2,000
Benzene	120	60
Bromobenzene	2,800	1,400
Bromochloromethane	400	200
Bromodichloromethane	4,600	2,300
Bromoform	13,000	6,300
n-Butyl Acetate	20,000	10,000
n-Butylbenzene	12,000	5,900
sec-Butylbenzene	12,000	5,900
tert-Butylbenzene	12,000	5,900
t-Butyl Ethyl Ether	4,000	2,000
Carbon Disulfide	5,600	2,800
Carbon Tetrachloride	1,600	800
Chlorobenzene	2,200	1,100
Chlorodifluoromethane	100	50
Chloroethane	400	200
2-Chloroethyl Vinyl Ether	1,000	500
Chloroform	800	400
Chloromethane	100	50
Chlorotoluene(s)	5,200	2,600
cis-Decahydronaphthalene	200,000	100,000
trans-Decahydronaphthalene	200,000	100,000
Decane	200,000	100,000
Dibromochloromethane	6,200	3,100
1,2-Dibromo-3-chloropropane	100	50
1,2-Dibromoethane	600	300
Dibromomethane	400	200
o-(1,2)-Dichlorobenzene	2,200	1,100
m-(1,3)-Dichlorobenzene	4,800	2,400
p-(1,4)-Dichlorobenzene	3,600	1,800
Dichlorodifluoromethane	600	300

<u>Contaminant</u>	<u>Action Levels (ppb)</u>	<u>Cleanup Objectives (ppb)</u>
1,1-Dichloroethane	600	300
1,2-Dichloroethane	100	50
1,1-Dichloroethene	600	300
cis-1,2-Dichloroethene	500	250
trans-1,2-Dichloroethene	400	200
1,2-Dichloropropane	100	50
1,3-Dichloropropane	600	300
2,2-Dichloropropane	600	300
1,1-Dichloropropene	200	100
cis-1,3-Dichloropropene	100	50
trans-1,3-Dichloropropene	100	50
p-Diethylbenzene	52,000	26,000
Diethyl Ether	600	300
Ethylbenzene	2,000	1,000
Ethyl Methacrylate	4,200	2,100
p-Ethyltoluene	9,000	4,500
Freon 113	12,000	6,000
Hexachlorobutadiene	54,000	27,000
Hexachloroethane	22,000	11,000
Hexane	150,000	73,000
2-Hexanone	13,000	6,700
Isopropylbenzene	9,400	4,700
p-Isopropyltoluene	22,000	11,000
Limonene	200,000	100,000
Methylene Chloride	100	50
(MTBE) tert-Butyl methyl ether	200	100
Methyl Ethyl Ketone (Butanone)	400	200
Methyl Iodide	200	100
Methyl Isobutyl Ketone	1,400	700
Methyl Isothiocyanate	600	300
Methyl Methacrylate	1,400	700
Naphthalene	24,000	12,000
Nitrobenzene	100	50
2-Nitropropane	600	300
Nonane	200,000	100,000
Octane	200,000	100,000
n-Propylbenzene	8,000	4,000
Styrene	9,200	4,600

<u>Contaminant</u>	<u>Action Levels</u> <u>(ppb)</u>	<u>Cleanup Objectives</u> <u>(ppb)</u>
1,1,1,2-Tetrachloroethane	600	300
1,1,2,2-Tetrachloroethane	800	400
Tetrachloroethene	2,600	1,300
Tetrahydrofuran	2,200	1,100
1,2,4,5-Tetramethylbenzene	18,000	8,800
Toluene	3,000	1,500
1,2,3-Trichlorobenzene	17,000	8,300
1,2,4-Trichlorobenzene	17,000	8,300
1,1,1-Trichloroethane	1,400	700
1,1,2-Trichloroethane	200	100
Trichloroethene	1,000	500
Trichlorofluoromethane	1,600	800
1,2,3-Trichloropropane	100	50
1,2,4-Trimethylbenzene	7,200	3,600
1,3,5-Trimethylbenzene	16,800	8,400
Undecane	200,000	100,000
Vinyl Acetate	600	300
Vinyl Chloride	100	50
Xylene(s)	3,200	1,600

** Due to its relatively short half-life in the environment, if acetone is the only contaminant of concern in a sample, the primary response should be to determine and eliminate the source of the acetone discharge. The requirement to perform a remediation will be determined on a case-by-case basis.

SOIL CLEANUP OBJECTIVES AND ACTION LEVELS FOR METALS **(MG/KG)**

<u>Contaminant</u>	<u>Action Levels</u> <u>(ppm)</u>	<u>Cleanup Objective</u> <u>(ppm)</u>
Arsenic	30.0	6.0
Barium	4,000.0	820.0
Beryllium	240.0	47.0
Cadmium	40.0	7.5
Chromium	100.0	20.0
Copper	8,500.0	1,700.0
Lead	2,000.0	450.0
Mercury	3.7	0.7
Nickel	650.0	130.0
Silver	50.0	10.0

Note: Certain metals, such as aluminum, iron and manganese, appear naturally in Long Island soils and are not considered to be significant under most conditions. Other metals will be evaluated on a case-by-case basis.

CLEANUP OBJECTIVES AND ACTION LEVELS
FOR SEMI-VOLATILE ORGANICS (UG/KG)

	<u>Action Levels</u> (ppb)	<u>Cleanup Objectives</u> (ppb)
Acenaphthene	200,000	98,000
Anthracene	200,000	100,000
Benzo(a)anthracene	2,000	1,000
Benzo(b)fluoranthene	3,400	1,700
Benzo(k)fluoranthene	3,400	1,700
Benzo(g,h,i)perylene	200,000	100,000
Benzo(a)pyrene	44,000	22,000
Chrysene	2,000	1,000
Dibenzo(a,h)anthracene	200,000	100,000
Fluoranthene	200,000	100,000
Fluorene	200,000	100,000
Indeno(1,2,3-cd)pyrene	16,000	8,000
Phenanthrene	200,000	100,000
Pyrene	200,000	100,000

Note: VOC and Semi-VOC contaminants were evaluated in a manner consistent with the New York State Department of Environmental Conservation's Technical and Administrative Guidance Memorandum (TAGM), HWR-94-4046. Cleanup objectives were established using the following relationship, subject to a maximum contaminant concentration of 100,000 ppb. Action levels were generally set at twice the cleanup objective, subject to a maximum contaminant concentration of 200,000 ppb. Cleanup Objectives were calculated using the following:

$$C_s = (DAF)(f)(C_w)(K_{oc})$$

Where:

- C_s = Allowable Soil Concentrations (ppb)
- DAF = Dilution Attenuation Factor of 100
- f = organic fraction in soil (assumed to be 1%, or 0.01)
- C_w = Water Quality Value (6NYCCR 703.5, or TOGS 1.1.1) in ppb
- K_{oc} = Organic Carbon Partition Coefficient (an approximation of the propensity of a compound to adsorb to organic matter in the soil)

Metals cleanup objectives were calculated based on the following:

$$C_s = (DAF)(C_w)(K_d)$$

Where:

- C_s = Allowable Soil Concentrations (ppm)
- DAF = Dilution Attenuation Factor of 20 for Cleanup Objectives and 100 for Action Levels
- C_w = Water Quality Value (6NYCCR 703.5, or TOGS 1.1.1) in ppm
- K_d = Soil Water Distribution Coefficient (partitioning coefficient for inorganics)

**New York State Department
of Environmental
Conservation**

**Part 375
Guidance Document**

375-6.8

Soil cleanup objective tables.

(a)

Unrestricted use soil cleanup objectives.

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
Metals		
Arsenic	7440-38-2	13 °
Barium	7440-39-3	350 °
Beryllium	7440-41-7	7.2
Cadmium	7440-43-9	2.5 °
Chromium, hexavalent °	18540-29-9	1 ^b
Chromium, trivalent °	16065-83-1	30 °
Copper	7440-50-8	50
Total Cyanide ^{e,f}		27
Lead	7439-92-1	63 °
Manganese	7439-96-5	1600 °
Total Mercury		0.18 °
Nickel	7440-02-0	30
Selenium	7782-49-2	3.9 ^e
Silver	7440-22-4	2
Zinc	7440-66-6	109 °
PCBs/Pesticides		
2,4,5-TP Acid (Silvex) ^f	93-72-1	3.8
4,4'-DDE	72-55-9	0.0033 ^b
4,4'-DDT	50-29-3	0.0033 ^b
4,4'-DDD	72-54-8	0.0033 ^b
Aldrin	309-00-2	0.005 °
alpha-BHC	319-84-6	0.02
beta-BHC	319-85-7	0.036
Chlordane (alpha)	5103-71-9	0.094

Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
delta-BHC ^s	319-86-8	0.04
Dibenzofuran ^f	132-64-9	7
Dieldrin	60-57-1	0.005 ^c
Endosulfan I ^{d,f}	959-98-8	2.4
Endosulfan II ^{d,f}	33213-65-9	2.4
Endosulfan sulfate ^{d,f}	1031-07-8	2.4
Endrin	72-20-8	0.014
Heptachlor	76-44-8	0.042
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	0.1
Semivolatile organic compounds		
Acenaphthene	83-32-9	20
Acenaphthylene ^f	208-96-8	100 ^a
Anthracene ^f	120-12-7	100 ^a
Benz(a)anthracene ^f	56-55-3	1 ^c
Benzo(a)pyrene	50-32-8	1 ^c
Benzo(b)fluoranthene ^f	205-99-2	1 ^c
Benzo(g,h,i)perylene ^f	191-24-2	100
Benzo(k)fluoranthene ^f	207-08-9	0.8 ^c
Chrysene ^f	218-01-9	1 ^c
Dibenz(a,h)anthracene ^f	53-70-3	0.33 ^b
Fluoranthene ^f	206-44-0	100 ^a
Fluorene	86-73-7	30
Indeno(1,2,3-cd)pyrene ^f	193-39-5	0.5 ^c
m-Cresol ^f	108-39-4	0.33 ^b
Naphthalene ^f	91-20-3	12
o-Cresol ^f	95-48-7	0.33 ^b

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
p-Cresol ^f	106-44-5	0.33 ^b
Pentachlorophenol	87-86-5	0.8 ^b
Phenanthrene ^f	85-01-8	100
Phenol	108-95-2	0.33 ^b
Pyrene ^f	129-00-0	100
Volatile organic compounds		
1,1,1-Trichloroethane ^f	71-55-6	0.68
1,1-Dichloroethane ^f	75-34-3	0.27
1,1-Dichloroethene ^f	75-35-4	0.33
1,2-Dichlorobenzene ^f	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02 ^c
cis -1,2-Dichloroethene ^f	156-59-2	0.25
trans-1,2-Dichloroethene ^f	156-60-5	0.19
1,3-Dichlorobenzene ^f	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1 ^b
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene ^f	104-51-8	12
Carbon tetrachloride ^f	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene ^f	100-41-4	1
Hexachlorobenzene ^f	118-74-1	0.33 ^b
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether ^f	1634-04-4	0.93
Methylene chloride	75-09-2	0.05

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
n - Propylbenzene ^f	103-65-1	3.9
sec-Butylbenzene ^f	135-98-8	11
tert-Butylbenzene ^f	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene ^f	95-63-6	3.6
1,3,5-Trimethylbenzene ^f	108-67-8	8.4
Vinyl chloride ^f	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm).

Footnotes

^a The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

^b For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

^c For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

^d SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

^e The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

^f Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with "NS". Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16 ^f	16 ^f	16 ^f	16 ^f	13 ^f	16 ^f
Barium	7440-39-3	350 ^f	400	400	10,000 ^d	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5 ^f	4.3	9.3	60	4	7.5
Chromium, hexavalent ^h	18540-29-9	22	110	400	800	1 ^e	19
Chromium, trivalent ^h	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 ^d	50	1,720
Total Cyanide ^h		27	27	27	10,000 ^d	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63 ^f	450
Manganese	7439-96-5	2,000 ^f	2,000 ^f	10,000 ^d	10,000 ^d	1600 ^f	2,000 ^f
Total Mercury		0.81 ^j	0.81 ^j	2.8 ^j	5.7 ^j	0.18 ^f	0.73
Nickel	7440-02-0	140	310	310	10,000 ^d	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9 ^f	4 ^f
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 ^d	10,000 ^d	10,000 ^d	109 ^f	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100 ^a	500 ^b	1,000 ^c	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 ^e	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 ^e	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 ^e	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04 ^e	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100 ^a	100 ^a	500 ^b	1,000 ^c	0.04 ^e	0.25
Dibenzofuran	132-64-9	14	59	350	1,000 ^c	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	102
Endosulfan II	33213-65-9	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	102
Endosulfan sulfate	1031-07-8	4.8 ⁱ	24 ⁱ	200 ⁱ	920 ⁱ	NS	1,000 ^c
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100 ^a	100 ^a	500 ^b	1,000 ^c	20	98
Acenaphthylene	208-96-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	107
Anthracene	120-12-7	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Benz(a)anthracene	56-55-3	1 ^f	1 ^f	5.6	11	NS	1 ^f
Benzo(a)pyrene	50-32-8	1 ^f	1 ^f	1 ^f	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1 ^f	1 ^f	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1 ^f	3.9	56	110	NS	1 ^f
Dibenz(a,h)anthracene	53-70-3	0.33 ^e	0.33 ^e	0.56	1.1	NS	1,000 ^c
Fluoranthene	206-44-0	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Fluorene	86-73-7	100 ^a	100 ^a	500 ^b	1,000 ^c	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5 ^f	0.5 ^f	5.6	11	NS	8.2
m-Cresol	108-39-4	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
Naphthalene	91-20-3	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
p-Cresol	106-44-5	34	100 ^a	500 ^b	1,000 ^c	NS	0.33 ^e
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8 ^e	0.8 ^e
Phenanthrene	85-01-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Phenol	108-95-2	100 ^a	100 ^a	500 ^b	1,000 ^c	30	0.33 ^e
Pyrene	129-00-0	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1,000 ^c
Volatiles							
1,1,1-Trichloroethane	71-55-6	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.33
1,2-Dichlorobenzene	95-50-1	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02 ^f
cis-1,2-Dichloroethene	156-59-2	59	100 ^a	500 ^b	1,000 ^c	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1 ^e	0.1 ^e
Acetone	67-64-1	100 ^a	100 ^b	500 ^b	1,000 ^c	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100 ^a	100 ^a	500 ^b	1,000 ^c	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33 ^c	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100 ^a	100 ^a	500 ^b	1,000 ^c	100 ^a	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100 ^a	500 ^b	1,000 ^c	NS	0.93
Methylene chloride	75-09-2	51	100 ^a	500 ^b	1,000 ^c	12	0.05
n-Propylbenzene	103-65-1	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	3.9
sec-Butylbenzene	135-98-8	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	11
tert-Butylbenzene	98-06-6	100 ^a	100 ^a	500 ^b	1,000 ^c	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100 ^a	100 ^a	500 ^b	1,000 ^c	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100 ^a	100 ^a	500 ^b	1,000 ^c	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).

NS=Not specified. See Technical Support Document (TSD).

Footnotes

^a The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

^b The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

^c The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

^d The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

^e For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

^f For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

^g This SCO is derived from data on mixed isomers of BHC.

^h The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

ⁱ This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

^j This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

Appendix D

Laboratory Analyses

Office of Pollution Control Samples

Public and Environmental Health

Laboratory

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 001-930-190430
Collection Date: 4/30/2019
Collection Time: 9:45 AM
Collected By: HELGANS



Sample ID: ZP00862
Submission Date: 4/30/2019
Lab Number: 04-19-00862
Sample Type: Soil
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-1

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
810	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethynylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4
97 Components		

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not Reported

Date Analyzed: 5/8/2019

Analyst(s): RF JC Report Date: 6/12/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 001-930-190430
Collection Date: 4/30/2019
Collection Time: 9:45:00 AM
Collected By: HELGANS



Sample ID: ZP00862
Submission Date: 4/30/2019
Lab Number: 04-19-00862
Sample Type: Solid
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-1

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
438	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethane ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethane ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethane ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): RF JC Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 001-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 09:45 AM
Type: IND



Lab#: 04-19-00862

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00862
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-1

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	4670.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	4800.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	7726.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	3140.	ug/g
C0101	Manganese ^a	61.0	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	267.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	204.	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	96.0	ug/g

CCV1 & CCV2 failed K, Na, TI 3%

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
 % Moisture 32.0%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Analyzed 1 day out of holding time.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **002-930-190430**
Collection Date: 4/30/2019
Collection Time: 9:50 AM
Collected By: HELGANS



Sample ID: **ZP00863**
Submission Date: 4/30/2019
Lab Number: 04-19-00863
Sample Type: Soil
TC: .6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-2

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4
97 Components		

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not Reported

Date Analyzed: 5/8/2019

Analyst(s): *RF JC* Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **002-930-190430**
Collection Date: 4/30/2019
Collection Time: 9:50:00 AM
Collected By: HELGANS



Sample ID: **ZP00863**
Submission Date: 4/30/2019
Lab Number: 04-19-00863
Sample Type: Solid
TC: .6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-2

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): RF JC Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 002-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 09:50 AM
Type: IND

Lab#: 04-19-00863

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00863
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-2

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

CCV1 & CCV2 failed K, Na, TI 3%

DB#	Analyte	Result	Units
C0132	Aluminum ^a	892.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	304.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	1499.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	237.	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	< 100	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	< 50	ug/g

25 Components Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture	5.4%

Date Analyzed: 5/23/2019

Analyst(s): *ME*

Date Reviewed: *6/11/19*

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

Analyzed 1 day out of holding time.

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

none

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528



Field Number: 003-930-190430
Collection Date: 4/30/2019
Collection Time: 10:15 AM
Collected By: HELGANS

Sample ID: ZP00864
Submission Date: 4/30/2019
Lab Number: 04-19-00864
Sample Type: Soil
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-3

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	NR
455	Carbon Disulfide ^a	56.
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	55.
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	7.
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	240.

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	57.
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	NR
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	NR
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	NR
600	Ethynylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	78.
257	Bromobenzene ^a	NR
295	1,1,2,2-Tetrachloroethane ^a	NR
602	n-Propylbenzene ^a	NR

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	NR
434	p-Ethyltoluene	NR
419	1,3,5-Trimethylbenzene ^a	NR
418	1,2,4-Trimethylbenzene ^a	NR
603	tert-Butylbenzene ^a	NR
604	sec-Butylbenzene ^a	NR
460	d-Limonene	NR
605	p-Isopropyltoluene ^a	NR
462	1,3-Dichlorobenzene ^a	NR
463	1,4-Dichlorobenzene ^a	NR
432	p-Diethylbenzene	NR
652	trans-decahydronaphthalene	NR
606	n-Butylbenzene ^a	NR
412	1,2-Dichlorobenzene ^a	NR
653	cis-decahydronaphthalene	NR
435	1,2,4,5-Tetramethylbenzene	NR
608	1,2-Dibromo-3-chloropropane ^a	NR
437	1,2,4-Trichlorobenzene ^a	NR
607	Hexachlorobutadiene ^a	NR
701	Naphthalene ^a	NR
438	1,2,3-Trichlorobenzene ^a	NR
654	Hexane	15.
655	Octane	< 10
656	Nonane	< 10
657	Decane	NR
658	Undecane	NR
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	NR
268	4-Chlorotoluene ^a	NR
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☒ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR= Not reported analytes associated with Surrogate Standards outside of acceptable limits.

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 003-930-190430
Collection Date: 4/30/2019
Collection Time: 10:15:00 AM
Collected By: HELGANS



Sample ID: ZP00864
Submission Date: 4/30/2019
Lab Number: 04-19-00864
Sample Type: Solid
TC: .6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-3

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc. (ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethane ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethane ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethane ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	38,000.
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	290.
419	1,3,5-Trimethylbenzene ^a	220.
418	1,2,4-Trimethylbenzene ^a	530.
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	260.
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	12,000.
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	240.
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	13,000.
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	580.
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	300.
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	810.
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): PF JC Report Date: 6/13/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 003-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 10:15 AM
Type: IND



Lab#: 04-19-00864

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00864
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-3

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	800.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	67.0	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	1621.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	165.	ug/g
C0100	Iron ^a	2483.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	445.	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	< 100	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	426.	ug/g

CCV1 & CCV2 failed K, Na, TI 3%

25 Components Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture	81.1%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	0.88	mg/Kg

Analyzed 1 day out of holding time

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **004-930-190430**
Collection Date: 4/30/2019
Collection Time: 10:40 AM
Collected By: HELGANS



Sample ID: **ZP00865**
Submission Date: 4/30/2019
Lab Number: 04-19-00865
Sample Type: Soil
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-4

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	16.
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethenylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	7.
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	15.
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4
97 Components		

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: *NR = not reported*

Date Analyzed: 5/8/2019

Analyst(s): *AT JC* Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **004-930-190430**
Collection Date: 4/30/2019
Collection Time: 10:40:00 AM
Collected By: HELGANS



Sample ID: **ZP00865**
Submission Date: 4/30/2019
Lab Number: 04-19-00865
Sample Type: Solid
TC: 16°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-4

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
308	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-isopropyltoluene ^a	< 200
482	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): *RF JC* Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 004-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 10:40 AM
Type: IND



Lab#: 04-19-00865

Submission Date: 4/30/2019
Submission Time: 03:42 PM
Labworks ID: ZP00865
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-4

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	3238.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	1340.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	65.0	ug/g
C0100	Iron ^a	11790.	ug/g
C0123	Lead ^a	161.	ug/g
C0109	Magnesium ^a	555.	ug/g
C0101	Manganese ^a	64.0	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	155.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	113.	ug/g

CCV2 failed K, Na 3%

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
 % Moisture 14.4%

Date Analyzed: 5/23/2019

Analyst(s): *me*

Date Reviewed: *G. Miller*

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

Analyzed 1 day out of holding time.

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 005-930-190430
Collection Date: 4/30/2019
Collection Time: 10:50 AM
Collected By: HELGANS



Sample ID: ZP00866
Submission Date: 4/30/2019
Lab Number: 04-19-00866
Sample Type: Soil
TC: .6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-5

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not reported

Date Analyzed: 5/8/2019

Analyst(s): *RF JC* Report Date: 6/12/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **005-930-190430**
Collection Date: **4/30/2019**
Collection Time: **10:50:00 AM**
Collected By: **HELGANS**



Sample ID: **ZP00866**
Submission Date: **4/30/2019**
Lab Number: **04-19-00866**
Sample Type: **Solid**
TC: **6°C (0-6 Acceptable)**

Source: **Bomarc Survey West Hampton S-5**

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethane ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): *RF JC* Report Date: 6/13/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 005-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 10:50 AM
Type: IND



Lab#: 04-19-00866

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00866
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-5

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	832.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	247.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	2120.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	191.	ug/g
C0101	Manganese ^a	56.0	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	< 100	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	< 50	ug/g

CCV1 & CCV2 failed K, Na, Ti 3% ✓

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
 % Moisture 12.8% ✓

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19 ✓

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

Analyzed 1 day out of holding time.

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 006-930-190430
Collection Date: 4/30/2019
Collection Time: 11:00 AM
Collected By: HELGANS



Sample ID: ZP00867
Submission Date: 4/30/2019
Lab Number: 04-19-00867
Sample Type: Soil
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-6

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethane ^a	< 4
000	Methyl cyclohexane ^a	< 4
406	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethynylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4
97 Components		

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = not reported

Date Analyzed: 5/8/2019

Analyst(s): RF JC Report Date: 8/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 006-930-190430
Collection Date: 4/30/2019
Collection Time: 11:00:00 AM
Collected By: HELGANS



Sample ID: ZP00867
Submission Date: 4/30/2019
Lab Number: 04-19-00867
Sample Type: Solid
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-6

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethane ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethane ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): RF JC Report Date: 6/13/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 006-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 11:00 AM
Type: IND

Lab#: 04-19-00867

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00867
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-6

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units	CCV1 & CCV2 Mo, Se, Sn, Ti, K, Na, Zn failed 2%
C0132	Aluminum ^a	6504.	ug/g	
C0427	Antimony ^a	< 50	ug/g	
C0120	Arsenic ^a	< 50	ug/g	
C0121	Barium ^a	< 50	ug/g	
C0426	Beryllium ^a	< 50	ug/g	
C0122	Cadmium ^a	< 50	ug/g	
C0108	Calcium ^a	1272.	ug/g	
C0104	Chromium ^a	< 50	ug/g	
C0128	Cobalt ^a	< 50	ug/g	
C0102	Copper ^a	80.0	ug/g	
C0100	Iron ^a	7803.	ug/g	
C0123	Lead ^a	< 50	ug/g	
C0109	Magnesium ^a	1135.	ug/g	
C0101	Manganese ^a	79.0	ug/g	
C0129	Molybdenum ^a	< 50	ug/g	
C0131	Nickel ^a	< 50	ug/g	
C0107	Potassium ^a	281.	ug/g	
C0125	Selenium ^a	< 50	ug/g	
C0126	Silver ^a	< 50	ug/g	
C0106	Sodium ^a	< 100	ug/g	
C0117	Strontium ^a	< 50	ug/g	
C0425	Thallium ^a	< 50	ug/g	
C0116	Tin ^a	< 50	ug/g	
C0115	Vanadium ^a	< 50	ug/g	
C0103	Zinc ^a	183.	ug/g	

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
 % Moisture 14.31%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 007-930-190430
Collection Date: 4/30/2019
Collection Time: 11:20 AM
Collected By: HELGANS



Sample ID: ZP00868
Submission Date: 4/30/2019
Lab Number: 04-19-00868
Sample Type: Soil
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-7

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
800	Ethynylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,6-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not reported

Results vary between prep methods
5035A-L and 5035A-H due to
sample methodology/selection.

Date Analyzed: 5/8/2019

Analyst(s): RF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **007-930-190430**
Collection Date: **4/30/2019**
Collection Time: **11:20:00 AM**
Collected By: **HELGANS**



Sample ID: **ZP00868**
Submission Date: **4/30/2019**
Lab Number: **04-19-00868**
Sample Type: **Solid**
TC: **.6°C (0-6 Acceptable)**

Source: **Bomarc Survey West Hampton S-7**

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropane ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	1,100.
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: *NR = Not reported*

*Results vary between prep methods
5035A-L and 5035A-H due to
some methodology variation.*

Date Analyzed: 5/10/2019

Analyst(s): *RF JC*

Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 007-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 11:20 AM
Type: IND

Lab#: 04-19-00868

Submission Date: 4/30/2019
Submission Time: 03:42 PM
Labworks ID: ZP00868
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-7

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

CCV1& CCV2 Mo,Se,Sn,Tl,K,Na,Zn failed 2%

DB#	Analyte	Result	Units
C0132	Aluminum ^a	2577.	ug/g
C0427	Antimony ^a	< 50.	ug/g
C0120	Arsenic ^a	< 50.	ug/g
C0121	Barium ^a	< 50.	ug/g
C0426	Beryllium ^a	< 50.	ug/g
C0122	Cadmium ^a	< 50.	ug/g
C0108	Calcium ^a	3371.	ug/g
C0104	Chromium ^a	< 50.	ug/g
C0128	Cobalt ^a	< 50.	ug/g
C0102	Copper ^a	74.0.	ug/g
C0100	Iron ^a	14084.	ug/g
C0123	Lead ^a	61.0.	ug/g
C0109	Magnesium ^a	1239.	ug/g
C0101	Manganese ^a	82.0.	ug/g
C0129	Molybdenum ^a	< 50.	ug/g
C0131	Nickel ^a	< 50.	ug/g
C0107	Potassium ^a	170.	ug/g
C0125	Selenium ^a	< 50.	ug/g
C0126	Silver ^a	< 50.	ug/g
C0106	Sodium ^a	121.	ug/g
C0117	Strontium ^a	< 50.	ug/g
C0425	Thallium ^a	< 50.	ug/g
C0116	Tin ^a	< 50.	ug/g
C0115	Vanadium ^a	< 50.	ug/g
C0103	Zinc ^a	187.	ug/g

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
 % Moisture 20.7%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

Analyzed 1 day out of holding time.
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **008-930-190430**
Collection Date: **4/30/2019**
Collection Time: **11:40 AM**
Collected By: **HELGANS**



Sample ID: **ZP00869**
Submission Date: **4/30/2019**
Lab Number: **04-19-00889**
Sample Type: **Soil**
TC: **6°C (0-6 Acceptable)**

Source: **Bomarc Survey West Hampton S-8**

VOLATILE ORGANIC ANALYSIS OF SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc. (ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc. (ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethenylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc. (ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: *NR = Not reported*

Results vary between prep methods 5035A-L and 5035A-H due to sample method of collection.

Date Analyzed: 5/8/2019

Analyst(s): *RF JC* Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **008-930-190430**
Collection Date: 4/30/2019
Collection Time: 11:40:00 AM
Collected By: HELGANS



Sample ID: **ZP00869**
Submission Date: 4/30/2019
Lab Number: 04-19-00869
Sample Type: Solid
TC: .6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-8

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
456	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	400
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

*Results vary between prep methods
5035A-L and 5035A-H due
to sample methodology/collection.*

Date Analyzed: 5/10/2019

Analyst(s): *PF JC* Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 008-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 11:40 AM
Type: IND



Lab#: 04-19-00869

Submission Date: 4/30/2019
Submission Time: 03:42 PM
Labworks ID: ZP00869
TC: 6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-8

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units	CCV1 & CCV2 Mo, Se, Sn, Tl, K, Na, Zn failed 2%
C0132	Aluminum ^a	3572.	ug/g	
C0427	Antimony ^a	< 50	ug/g	
C0120	Arsenic ^a	< 50	ug/g	
C0121	Barium ^a	< 50	ug/g	
C0426	Beryllium ^a	< 50	ug/g	
C0122	Cadmium ^a	< 50	ug/g	
C0108	Calcium ^a	335.	ug/g	
C0104	Chromium ^a	< 50	ug/g	
C0128	Cobalt ^a	< 50	ug/g	
C0102	Copper ^a	< 50	ug/g	
C0100	Iron ^a	5820.	ug/g	
C0123	Lead ^a	< 50	ug/g	
C0109	Magnesium ^a	375.	ug/g	
C0101	Manganese ^a	54.0	ug/g	
C0129	Molybdenum ^a	< 50	ug/g	
C0131	Nickel ^a	< 50	ug/g	
C0107	Potassium ^a	157.	ug/g	
C0125	Selenium ^a	< 50	ug/g	
C0126	Silver ^a	< 50	ug/g	
C0106	Sodium ^a	< 100	ug/g	
C0117	Strontium ^a	< 50	ug/g	
C0425	Thallium ^a	< 50	ug/g	
C0116	Tin ^a	< 50	ug/g	
C0115	Vanadium ^a	< 50	ug/g	
C0103	Zinc ^a	120.	ug/g	

25 Components Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture	10.3%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **009-930-190430**
Collection Date: 4/30/2019
Collection Time: 11:50 AM
Collected By: HELGANS



Sample ID: **ZP00870**
Submission Date: 4/30/2019
Lab Number: 04-19-00870
Sample Type: Soil
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-9

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethenylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not reported

Date Analyzed: 5/8/2019

Analyst(s): *RF JC* Report Date: 6/12/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 009-930-190430
Collection Date: 4/30/2019
Collection Time: 11:50:00 AM
Collected By: HELGANS



Sample ID: ZP00870
Submission Date: 4/30/2019
Lab Number: 04-19-00870
Sample Type: Solid
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-9

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): KF JC Report Date: 5/13/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 009-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 11:50 AM
Type: IND



Lab#: 04-19-00870

Submission Date: 4/30/2019
Submission Time: 03:42 PM
Labworks ID: ZP00870
TC: 6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-9

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units	CCV1 & CCV2 Mo, Se, Sn, Tl, K, Na, Zn failed 2%
C0132	Aluminum ^a	916.	ug/g	
C0427	Antimony ^a	< 50	ug/g	
C0120	Arsenic ^a	< 50	ug/g	
C0121	Barium ^a	< 50	ug/g	
C0426	Beryllium ^a	< 50	ug/g	
C0122	Cadmium ^a	< 50	ug/g	
C0108	Calcium ^a	175.	ug/g	
C0104	Chromium ^a	< 50	ug/g	
C0128	Cobalt ^a	< 50	ug/g	
C0102	Copper ^a	< 50	ug/g	
C0100	Iron ^a	1392.	ug/g	
C0123	Lead ^a	< 50	ug/g	
C0109	Magnesium ^a	161.	ug/g	
C0101	Manganese ^a	< 50	ug/g	
C0129	Molybdenum ^a	< 50	ug/g	
C0131	Nickel ^a	< 50	ug/g	
C0107	Potassium ^a	< 100	ug/g	
C0125	Selenium ^a	< 50	ug/g	
C0126	Silver ^a	< 50	ug/g	
C0106	Sodium ^a	< 100	ug/g	
C0117	Strontium ^a	< 50	ug/g	
C0425	Thallium ^a	< 50	ug/g	
C0116	Tin ^a	< 50	ug/g	
C0115	Vanadium ^a	< 50	ug/g	
C0103	Zinc ^a	< 50	ug/g	

25 Components Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture 7.6%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 010-930-190430
Collection Date: 4/30/2019
Collection Time: 12:00:00 PM
Collected By: HELGANS



Sample ID: ZP00871
Submission Date: 4/30/2019
Lab Number: 04-19-00871
Sample Type: Solid
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-10

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc. (ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethane ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	230.
600	Ethenylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	530.
419	1,3,5-Trimethylbenzene ^a	200.
418	1,2,4-Trimethylbenzene ^a	1,000.
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	700.
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	320.
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	910.
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	790.
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	5,600.
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported Results vary between prep methods 5035 A-H and 5035 A-L due to sample methodology

Date Analyzed: 5/10/2019

Analyst(s): RF JC Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528



Field Number: 010-930-190430
Collection Date: 4/30/2019
Collection Time: 12:00 PM
Collected By: HELGANS

Sample ID: ZP00871
Submission Date: 4/30/2019
Lab Number: 04-19-00871
Sample Type: Soil
TC: .6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-10

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethane ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	41.
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	13.
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	11.
600	Ethynylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	8.

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	47.
419	1,3,5-Trimethylbenzene ^a	29.
418	1,2,4-Trimethylbenzene ^a	130.
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	11.
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	12.
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	88.
652	trans-decahydronaphthalene	52.
606	n-Butylbenzene ^a	34.
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	160.
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	110.
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	26.
657	Decane	NR
658	Undecane	NR
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR- Not Reported Results vary between prep methods 5035 A-H and 5035 A-L due to sample methodology

Date Analyzed: 5/8/2019

Analyst(s): *KF JC* Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 010-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 12:00 PM
Type: IND



Lab#: 04-19-00871

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00871
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-10

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	22946.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	5582.	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	55061.	ug/g
C0104	Chromium ^a	267.	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	1499.	ug/g
C0100	Iron ^a	76049.	ug/g
C0123	Lead ^a	506.	ug/g
C0109	Magnesium ^a	23663.	ug/g
C0101	Manganese ^a	655.	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	31099.	ug/g
C0125	Selenium ^a	627.	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	2661.	ug/g
C0117	Strontium ^a	3527.	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	127.	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	3558.	ug/g

CCV1 & CCV2 Mo, Se, Sn, Ti, K, Na, Zn failed 2%

25 Components Note: Results based on wet weight (as received).
*Analyte covered under ELAP accreditation for solid and hazardous waste.
% Moisture 15.3%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: C. H. H.

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

*Analyte covered under ELAP accreditation for solid and hazardous waste.

Analyzed 1 day out of holding time.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 011-930-190430
Collection Date: 4/30/2019
Collection Time: 12:15:00 PM
Collected By: HELGANS



Sample ID: ZP00872
Submission Date: 4/30/2019
Lab Number: 04-19-00872
Sample Type: Solid
TC: 6°C (0-6 Acceptable)

Source: Bormarc Survey West Hampton S-11

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethenylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	210.
419	1,3,5-Trimethylbenzene ^a	280.
418	1,2,4-Trimethylbenzene ^a	300.
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	8,800.
605	p-Isopropyltoluene ^a	420.
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	5,400.
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	3,200.
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	260.
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): RF JC Report Date: 6/13/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528



Field Number: 011-930-190430
Collection Date: 4/30/2019
Collection Time: 12:15 PM
Collected By: HELGANS

Sample ID: ZP00872
Submission Date: 4/30/2019
Lab Number: 04-19-00872
Sample Type: Soil
TC: .6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-11

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	NR
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	12.
600	Ethylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	NR
295	1,1,2,2-Tetrachloroethane ^a	NR
602	n-Propylbenzene ^a	NR

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	NR
434	p-Ethyltoluene	NR
419	1,3,5-Trimethylbenzene ^a	NR
418	1,2,4-Trimethylbenzene ^a	NR
603	tert-Butylbenzene ^a	NR
604	sec-Butylbenzene ^a	NR
460	d-Limonene	NR
605	p-Isopropyltoluene ^a	NR
462	1,3-Dichlorobenzene ^a	NR
463	1,4-Dichlorobenzene ^a	NR
432	p-Diethylbenzene	NR
652	trans-decahydronaphthalene	NR
606	n-Butylbenzene ^a	NR
412	1,2-Dichlorobenzene ^a	NR
653	cis-decahydronaphthalene	NR
435	1,2,4,5-Tetramethylbenzene	NR
608	1,2-Dibromo-3-chloropropane ^a	NR
437	1,2,4-Trichlorobenzene ^a	NR
607	Hexachlorobutadiene ^a	NR
701	Naphthalene ^a	NR
438	1,2,3-Trichlorobenzene ^a	NR
654	Hexane	< 10
655	Octane	< 10
656	Nonane	48.
657	Decane	NR
658	Undecane	NR
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	NR
268	4-Chlorotoluene ^a	NR
000	1,4-Dioxane ^a	5.

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.

☒ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR= Not reported analytes associated with Surrogate Standards outside of acceptable limits.

Date Analyzed: 5/8/2019

Analyst(s): *RF JC* Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 011-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 12:15 PM
Type: IND



Lab#: 04-19-00872

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00872
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-11

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	2658.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	1248.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	17384.	ug/g
C0123	Lead ^a	241.	ug/g
C0109	Magnesium ^a	486.	ug/g
C0101	Manganese ^a	122.	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	112.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	119.	ug/g

CCV1 As, Be, Mo, Se, Sn, Ti, Zn failed 1-3%

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
% Moisture 29.0%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

analyzed 1 day out of hold

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 012-930-190430
Collection Date: 4/30/2019
Collection Time: 12:30:00 PM
Collected By: HELGANS



Sample ID: ZP00873
Submission Date: 4/30/2019
Lab Number: 04-19-00873
Sample Type: Solid
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-12

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethane ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): PF JC Report Date: 6/13/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **012-930-190430**
Collection Date: 4/30/2019
Collection Time: 12:30 PM
Collected By: HELGANS



Sample ID: **ZP00873**
Submission Date: 4/30/2019
Lab Number: 04-19-00873
Sample Type: Soil
TC: .6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-12

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethane ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
468	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethane ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethane ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR=Not reported

Date Analyzed: 5/8/2019

Analyst(s): RF JC Report Date: 6/12/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 012-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 12:30 PM
Type: IND

Lab#: 04-19-00873

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00873
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-12

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	3712.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	225.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	3900.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	303.	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	148.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	< 50	ug/g

CCV1 As, Be, Mo, Se, Sn, Ti, Zn failed 1-3%

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
 % Moisture 12.4%

Date Analyzed: 5/23/2019

Analyst(s): *ME*

Date Reviewed: *6/1/19*

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Analyzed 1 day out of holding time.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 013-930-190430
Collection Date: 4/30/2019
Collection Time: 12:55:00 PM
Collected By: HELGANS



Sample ID: ZP00874
Submission Date: 4/30/2019
Lab Number: 04-19-00874
Sample Type: Solid
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-13

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethane ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

Date Analyzed: 5/10/2019

Analyst(s): RF JC Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 013-930-190430
Collection Date: 4/30/2019
Collection Time: 12:55 PM
Collected By: HELGANS



Sample ID: ZP00874
Submission Date: 4/30/2019
Lab Number: 04-19-00874
Sample Type: Soil
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-13

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethynylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4
97 Components		

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.

☒ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not reported

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Date Analyzed: 5/8/2019

Analyst(s): PF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
- DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 013-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 12:55 PM
Type: IND



Lab#: 04-19-00874

Submission Date: 4/30/2019
Submission Time 03:42 PM
Labworks ID: ZP00874
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-13

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	3809.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	360.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	20627.	ug/g
C0123	Lead ^a	65.0	ug/g
C0109	Magnesium ^a	269.	ug/g
C0101	Manganese ^a	126.	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	144.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0118	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	68.0	ug/g

CCV1 As,Be, Mo,Se,Sn,Ti,Zn failed 1-3%

25 Components Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture	16.2%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

Analyzed 1 day out of holding time.

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 014-930-190430
Collection Date: 4/30/2019
Collection Time: 1:30:00 PM
Collected By: HELGANS



Sample ID: ZP00875
Submission Date: 4/30/2019
Lab Number: 04-19-00875
Sample Type: Solid
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-14

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc. (ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 800
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropene ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 800
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 800
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR- Not Reported

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 014-930-190430
Collection Date: 4/30/2019
Collection Time: 1:30 PM
Collected By: HELGANS



Sample ID: ZP00875
Submission Date: 4/30/2019
Lab Number: 04-19-00875
Sample Type: Soil
TC: 6°C (0-6 Acceptable)

Source: Bomarc Survey West Hampton S-14

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not reported

Date Analyzed: 5/8/2019

Analyst(s): RF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 014-930-190430

Collector: HELGANS
Collection Date: 4/30/2019
Collection Time: 01:30 PM
Type: IND



Lab#: 04-19-00875

Submission Date: 4/30/2019
Submission Time: 03:42 PM
Labworks ID: ZP00875
TC: .6°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey West Hampton S-14

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	5242.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	119.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	4967.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	319.	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	176.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	< 50	ug/g

CCV1 As, Be, Mo, Se, Sn, Tl, Zn failed 1-3%

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
 % Moisture 12.3%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

Analyzed 1 day out of holding time.

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 001-930-190501
Collection Date: 5/1/2019
Collection Time: 9:35 AM
Collected By: HELGANS



Sample ID: ZQ00068
Submission Date: 5/1/2019
Lab Number: 05-19-00068
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey- BOMARC Westhampton, S-15 Gun Range Sanitary

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
438	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	5.
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	< 4
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	12.
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	18.
658	Undecane	21.
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4
97 Components		

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not reported

Date Analyzed: 5/13/2019

Analyst(s): RF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 001-930-190501
Collection Date: 5/1/2019
Collection Time: 9:35:00 AM
Collected By: HELGANS



Sample ID: ZQ00068
Submission Date: 5/1/2019
Lab Number: 05-19-00068
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey- BOMARC Westhampton, S-15 Gun Range Sanitary
VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc. (ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethene ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	NR
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not reported

Date Analyzed: 5/24/2019

Analyst(s): *RF JC* Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 001-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 09:35 AM
Type: IND

Lab#: 05-19-00068

Submission Date: 5/1/2019
Submission Time: 03:56 PM
Labworks ID: ZQ00068
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey- BOMARC Westhampton, S-15 Gun Range Sanitary

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

CCV1 As, Be, Mo, Se, Sn, Tl, Zn failed 1-3%

DB#	Analyte	Result	Units
C0132	Aluminum ^a	305.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	214.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	455.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	< 100	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	< 100	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	< 50	ug/g

25 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste

% Moisture 29.2%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 002-930-190501
Collection Date: 5/1/2019
Collection Time: 10:05:00 AM
Collected By: HELGANS



Sample ID: ZQ00069
Submission Date: 5/1/2019
Lab Number: 05-19-00069
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: BOMARC Survey BOMARC Westhampton, S-16 Bldg 216/ floor drain
VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc. (ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
308	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropane ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc. (ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	50,000.
251	Toluene ^a	460.
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	36,000.
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	250,000.
600	Ethylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	3,100.
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	1,800.

DB#	Analyte	Conc. (ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	420.
419	1,3,5-Trimethylbenzene ^a	440.
418	1,2,4-Trimethylbenzene ^a	460.
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	2,000.
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	700.
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	11,000.
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GCMS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: Results vary between prep methods

5035A-L and 5035A-H due to Sample

collection and prep methodology

Date Analyzed: 5/24/2019

Analyst(s): *RF JC* Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 002-930-190501
Collection Date: 5/1/2019
Collection Time: 10:05 AM
Collected By: HELGANS



Sample ID: ZQ00069
Submission Date: 5/1/2019
Lab Number: 05-19-00069
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-16 Bldg 216/ floor drain

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethane ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	4.
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	< 4
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethynylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: Results vary between prep methods

5035A-L and 5035A-H due to sample

collection and methodology.

Date Analyzed: 5/13/2019

Analyst(s):

Report Date:

6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 002-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 10:05 AM
Type: IND



Lab#: 05-19-00069

Submission Date: 5/1/2019
Submission Time: 03:58 PM
Labworks ID: ZQ00069
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton, S-16 Bldg 216/ floor drain

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units	CCV1 & CCV2 Mo, Zn, Al, As, Be, Se, Ti, Na failed 1-2%
C0132	Aluminum ^a	3161.	ug/g	
C0427	Antimony ^a	< 50	ug/g	
C0120	Arsenic ^a	< 50	ug/g	
C0121	Barium ^a	113.	ug/g	
C0426	Beryllium ^a	< 50	ug/g	
C0122	Cadmium ^a	< 50	ug/g	
C0108	Calcium ^a	5841.	ug/g	
C0104	Chromium ^a	99.0	ug/g	
C0128	Cobalt ^a	< 50	ug/g	
C0102	Copper ^a	220.	ug/g	
C0100	Iron ^a	107667.	ug/g	
C0123	Lead ^a	1788.	ug/g	
C0109	Magnesium ^a	859.	ug/g	
C0101	Manganese ^a	445.	ug/g	
C0129	Molybdenum ^a	< 50	ug/g	
C0131	Nickel ^a	53.0	ug/g	
C0107	Potassium ^a	386.	ug/g	
C0125	Selenium ^a	70.0	ug/g	
C0126	Silver ^a	< 50	ug/g	
C0106	Sodium ^a	234.	ug/g	
C0117	Strontium ^a	< 50	ug/g	
C0425	Thallium ^a	< 50	ug/g	
C0116	Tin ^a	< 50	ug/g	
C0115	Vanadium ^a	< 50	ug/g	
C0103	Zinc ^a	4203.	ug/g	

25 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture	19.0%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 5/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	6.66	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 003-930-190501
Collection Date: 5/1/2019
Collection Time: 10:45 AM
Collected By: HELGANS



Sample ID: ZQ00070
Submission Date: 5/1/2019
Lab Number: 05-19-00070
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-17/ floor drain

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc. (ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc. (ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethene ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	< 4
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc. (ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
608	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.

☒ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: Results vary between prep methods

5035A-L and 5035A-H due to

Sample collection and/or methodology Date Analyzed: 5/13/2019

Analyst(s): PF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 003-930-190501
Collection Date: 5/1/2019
Collection Time: 10:45:00 AM
Collected By: HELGANS



Sample ID: ZQ00070
Submission Date: 5/1/2019
Lab Number: 05-19-00070
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-17/ floor drain

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
486	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	290.
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	300.
418	1,2,4-Trimethylbenzene ^a	720.
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	220.
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	600.
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	340.
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☒ Some surrogate standard values are not within the acceptable limits.

Comments: Results vary between prep methods

5035A-L and 5035A-H due to Sample
Collection and/or methodology.

Date Analyzed: 5/25/2019

Analyst(s):

JK

Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 003-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 10:45 AM
Type: IND



Lab#: 05-19-00070

Submission Date: 5/1/2019
Submission Time: 03:59 PM
Labworks ID: ZQ00070
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton, S-17/ floor drain

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units	CCV1 Mo, Zn, Al, As, Ba, Se, Sn, Ti, Na failed 1-2%
C0132	Aluminum ^a	4679.	ug/g	
C0427	Antimony ^a	< 50	ug/g	
C0120	Arsenic ^a	< 50	ug/g	
C0121	Barium ^a	133.	ug/g	
C0426	Beryllium ^a	< 50	ug/g	
C0122	Cadmium ^a	130.	ug/g	
C0108	Calcium ^a	7367.	ug/g	
C0104	Chromium ^a	209.	ug/g	
C0128	Cobalt ^a	< 50	ug/g	
C0102	Copper ^a	216.	ug/g	
C0100	Iron ^a	124137.	ug/g	
C0123	Lead ^a	9886.	ug/g	
C0109	Magnesium ^a	5407.	ug/g	
C0101	Manganese ^a	585.	ug/g	
C0129	Molybdenum ^a	< 50	ug/g	
C0131	Nickel ^a	74.0	ug/g	
C0107	Potassium ^a	926.	ug/g	
C0125	Selenium ^a	76.0	ug/g	
C0126	Silver ^a	< 50	ug/g	
C0106	Sodium ^a	661.	ug/g	
C0117	Strontium ^a	< 50	ug/g	
C0425	Thallium ^a	< 50	ug/g	
C0116	Tin ^a	< 50	ug/g	
C0115	Vanadium ^a	< 50	ug/g	
C0103	Zinc ^a	2435.	ug/g	

25 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture

30.4 %

Date Analyzed: 5/23/2019

Analyst(s):

Date Reviewed: 6/10/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	5.3	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 004-930-190501
Collection Date: 5/1/2019
Collection Time: 12:00 PM
Collected By: HELGANS



Sample ID: ZQ00071
Submission Date: 5/1/2019
Lab Number: 05-19-00071
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-18 bldg 205/ floor drain

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropene ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	< 4
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethenylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not reported

Date Analyzed: 5/14/2019

Analyst(s): RF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **004-930-190501**
Collection Date: 5/1/2019
Collection Time: 12:00:00 PM
Collected By: HELGANS



Sample ID: **ZQ00071**
Submission Date: 5/1/2019
Lab Number: 05-19-00071
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: **Bomarc Survey BOMARC Westhampton, S-18 bldg 205/ floor drain**
VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: *NR = Not reported*

Date Analyzed: 5/25/2019

Analyst(s): *RF JC* Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 004-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 12:00 PM
Type: IND

Lab#: 05-19-00071

Submission Date: 5/1/2019
Submission Time: 03:59 PM
Labworks ID: ZQ00071
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton, S-18 bldg 205/ floor drain

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	1345.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	1042.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	8040.	ug/g
C0123	Lead ^a	164.	ug/g
C0109	Magnesium ^a	376.	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	131.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	135.	ug/g

CCV1 & CCV2 Mo,Zn,Al,As,Be,Se,Tl,Na
failed 1-2%

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
% Moisture 5.1%

Date Analyzed: 5/23/2019

Analyst(s): *ME*

Date Reviewed: *6/11/19*

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528



Field Number: 005-930-190501
Collection Date: 5/1/2019
Collection Time: 12:30 PM
Collected By: HELGANS

Sample ID: ZQ00072
Submission Date: 5/1/2019
Lab Number: 05-19-00072
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-19

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)	DB#	Analyte	Conc.(ppb)	DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR	651	tert-Amyl methyl ether	< 4	433	1,2,3-Trichloropropane ^a	< 4
610	Chloromethane ^a	< 4	324	1,2-Dichloroethane ^a	< 4	434	p-Ethyltoluene	< 4
306	Vinyl chloride ^a	< 4	310	Trichloroethane ^a	< 4	419	1,3,5-Trimethylbenzene ^a	< 4
611	Bromomethane ^a	< 4	000	Methyl cyclohexane ^a	< 4	418	1,2,4-Trimethylbenzene ^a	< 4
612	Chloroethane ^a	< 4	405	1,2-Dichloropropane ^a	< 4	603	tert-Butylbenzene ^a	< 4
439	Trichlorofluoromethane ^a	< 4	458	Methyl methacrylate ^a	< 4	604	sec-Butylbenzene ^a	< 4
453	Diethyl ether ^a	< 4	292	Dibromomethane ^a	< 4	460	d-Limonene	< 4
320	Freon 113 ^a	< 4	302	Bromodichloromethane ^a	< 4	605	p-Isopropyltoluene ^a	< 4
307	1,1-Dichloroethene ^a	< 4	468	2-Nitropropane ^a	< 20	462	1,3-Dichlorobenzene ^a	< 4
454	Methyl iodide ^a	NR	452	2-Chloroethyl vinyl ether ^a	NR	463	1,4-Dichlorobenzene ^a	< 4
618	Acetone ^a	< 10	407	cis-1,3-Dichloropropene ^a	< 4	432	p-Diethylbenzene	< 4
455	Carbon Disulfide ^a	< 4	459	Methyl isobutyl ketone ^a	< 4	652	trans-decahydronaphthalene	< 4
466	Allyl chloride ^a	< 4	251	Toluene ^a	< 4	606	n-Butylbenzene ^a	< 4
305	Methylene chloride ^a	< 4	465	Methyl isothiocyanate	< 4	412	1,2-Dichlorobenzene ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4	408	trans-1,3-Dichloropropene ^a	< 4	653	cis-decahydronaphthalene	< 4
614	tert-Butyl methyl ether ^a	< 4	469	Ethyl methacrylate ^a	NR	435	1,2,4,5-Tetramethylbenzene	< 4
456	Acrylonitrile ^a	< 4	322	1,1,2-Trichloroethane ^a	< 4	608	1,2-Dibromo-3-chloropropane ^a	< 4
323	1,1-Dichloroethane ^a	< 4	311	Tetrachloroethane ^a	< 4	437	1,2,4-Trichlorobenzene ^a	< 4
457	Vinyl acetate ^a	NR	451	1,3-Dichloropropane ^a	< 4	607	Hexachlorobutadiene ^a	< 4
650	tert-Butyl ethyl ether	< 4	474	2-Hexanone ^a	< 4	701	Naphthalene ^a	< 4
450	2,2-Dichloropropane ^a	< 4	475	n-Butyl acetate	< 4	438	1,2,3-Trichlorobenzene ^a	< 4
308	cis-1,2-Dichloroethane ^a	< 4	303	Chlorodibromomethane ^a	< 4	654	Hexane	< 10
619	Methyl ethyl ketone ^a	< 10	293	1,2-Dibromoethane ^a	< 4	655	Octane	< 10
000	Ethyl acetate ^a	< 20	258	Chlorobenzene ^a	< 4	656	Nonane	< 10
473	Propionitrile ^a	< 4	259	Ethylbenzene ^a	< 4	657	Decane	< 10
621	Tetrahydrofuran	< 4	409	1,1,1,2-Tetrachloroethane ^a	< 4	658	Undecane	< 10
290	Bromochloromethane ^a	< 4	255	Total Xylene ^a	< 4	467	Methyl acrylonitrile ^a	< 4
300	Chloroform ^a	< 4	600	Ethenylbenzene (Styrene) ^a	< 4	000	tert-butyl alcohol ^a	< 50
000	Cyclohexane ^a	< 4	301	Bromoform ^a	< 4	266	2-Chlorotoluene ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4	601	Isopropylbenzene ^a	< 4	268	4-Chlorotoluene ^a	< 4
304	Carbon tetrachloride ^a	< 4	257	Bromobenzene ^a	< 4	000	1,4-Dioxane ^a	< 4
613	1,1-Dichloropropene ^a	< 4	295	1,1,2,2-Tetrachloroethane ^a	< 4			
250	Benzene ^a	< 4	602	n-Propylbenzene ^a	< 4			

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not reported

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Date Analyzed: 5/14/2019

Analyst(s): RF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528



Field Number: 005-930-190501
Collection Date: 5/1/2019
Collection Time: 12:30:00 PM
Collected By: HELGANS

Sample ID: ZQ00072
Submission Date: 5/1/2019
Lab Number: 05-19-00072
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-19

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethanylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

*Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not Reported

Date Analyzed: 5/25/2019

Analyst(s): *RF JC* Report Date: 6/12/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 005-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 12:30 PM
Type: IND

Lab#: 05-19-00072

Submission Date: 5/1/2019
Submission Time: 04:00 PM
Labworks ID: ZQ00072
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton, S-19

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units	CCV1 & CCV2 As, Cd, Co, Mo, Pb, Sb, Se, Sn, Ti, Zn Al, Na failed 1-10%
C0132	Aluminum ^a	473.	ug/g	
C0427	Antimony ^a	1606.	ug/g	
C0120	Arsenic ^a	135.	ug/g	
C0121	Barium ^a	< 50	ug/g	
C0426	Beryllium ^a	< 50	ug/g	
C0122	Cadmium ^a	< 50	ug/g	
C0108	Calcium ^a	< 100	ug/g	
C0104	Chromium ^a	< 50	ug/g	
C0128	Cobalt ^a	< 50	ug/g	
C0102	Copper ^a	5996.	ug/g	
C0100	Iron ^a	2884.	ug/g	
C0123	Lead ^a	99673.	ug/g	PENDING DILUTION
C0109	Magnesium ^a	< 100	ug/g	
C0101	Manganese ^a	< 50	ug/g	
C0129	Molybdenum ^a	< 50	ug/g	
C0131	Nickel ^a	< 50	ug/g	
C0107	Potassium ^a	< 100	ug/g	
C0125	Selenium ^a	< 50	ug/g	
C0126	Silver ^a	< 50	ug/g	
C0106	Sodium ^a	< 100	ug/g	
C0117	Strontium ^a	< 50	ug/g	
C0425	Thallium ^a	< 50	ug/g	
C0116	Tin ^a	300.	ug/g	
C0115	Vanadium ^a	< 50	ug/g	
C0103	Zinc ^a	230.	ug/g	

25 Components Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture	6.7%

Date Analyzed: 5/23/2019

Analyst(s): MP

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528



Field Number: 006-930-190501
Collection Date: 5/1/2019
Collection Time: 12:40 PM
Collected By: HELGANS

Sample ID: ZQ00073
Submission Date: 5/1/2019
Lab Number: 06-19-00073
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey- BOMARC Westhampton, S-20/ shooting range bottom

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)	DB#	Analyte	Conc.(ppb)	DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR	651	tert-Amyl methyl ether	< 4	433	1,2,3-Trichloropropane ^a	< 4
610	Chloromethane ^a	< 4	324	1,2-Dichloroethane ^a	< 4	434	p-Ethyltoluene	< 4
306	Vinyl chloride ^a	< 4	310	Trichloroethene ^a	< 4	419	1,3,5-Trimethylbenzene ^a	< 4
611	Bromomethane ^a	< 4	000	Methyl cyclohexane ^a	< 4	418	1,2,4-Trimethylbenzene ^a	< 4
612	Chloroethane ^a	< 4	405	1,2-Dichloropropane ^a	< 4	603	tert-Butylbenzene ^a	< 4
439	Trichlorofluoromethane ^a	5.	458	Methyl methacrylate ^a	< 4	604	sec-Butylbenzene ^a	< 4
453	Diethyl ether ^a	< 4	292	Dibromomethane ^a	< 4	460	d-Limonene	< 4
320	Freon 113 ^a	< 4	302	Bromodichloromethane ^a	< 4	605	p-Isopropyltoluene ^a	< 4
307	1,1-Dichloroethene ^a	< 4	468	2-Nitropropane ^a	< 20	462	1,3-Dichlorobenzene ^a	< 4
454	Methyl iodide ^a	NR	452	2-Chloroethyl vinyl ether ^a	NR	463	1,4-Dichlorobenzene ^a	< 4
618	Acetone ^a	< 10	407	cis-1,3-Dichloropropene ^a	< 4	432	p-Diethylbenzene	< 4
455	Carbon Disulfide ^a	< 4	459	Methyl isobutyl ketone ^a	< 4	652	trans-decahydronaphthalene	< 4
466	Allyl chloride ^a	< 4	251	Toluene ^a	< 4	606	n-Butylbenzene ^a	< 4
305	Methylene chloride ^a	< 4	465	Methyl isothiocyanate	< 4	412	1,2-Dichlorobenzene ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4	408	trans-1,3-Dichloropropene ^a	< 4	653	cis-decahydronaphthalene	< 4
614	tert-Butyl methyl ether ^a	< 4	469	Ethyl methacrylate ^a	NR	435	1,2,4,5-Tetramethylbenzene	< 4
456	Acrylonitrile ^a	< 4	322	1,1,2-Trichloroethane ^a	< 4	608	1,2-Dibromo-3-chloropropane ^a	< 4
323	1,1-Dichloroethane ^a	< 4	311	Tetrachloroethene ^a	< 4	437	1,2,4-Trichlorobenzene ^a	< 4
457	Vinyl acetate ^a	NR	451	1,3-Dichloropropane ^a	< 4	607	Hexachlorobutadiene ^a	< 4
650	tert-Butyl ethyl ether	< 4	474	2-Hexanone ^a	< 4	701	Naphthalene ^a	< 4
450	2,2-Dichloropropane ^a	< 4	475	n-Butyl acetate	< 4	438	1,2,3-Trichlorobenzene ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4	303	Chlorodibromomethane ^a	< 4	654	Hexane	< 10
619	Methyl ethyl ketone ^a	< 10	293	1,2-Dibromoethane ^a	< 4	655	Octane	< 10
000	Ethyl acetate ^a	< 20	258	Chlorobenzene ^a	< 4	656	Nonane	< 10
473	Propionitrile ^a	< 4	259	Ethylbenzene ^a	< 4	657	Decane	< 10
621	Tetrahydrofuran	< 4	409	1,1,1,2-Tetrachloroethane ^a	< 4	658	Undecane	< 10
290	Bromochloromethane ^a	< 4	255	Total Xylene ^a	< 4	467	Methyl acrylonitrile ^a	< 4
300	Chloroform ^a	< 4	600	Ethynylbenzene (Styrene) ^a	< 4	000	tert-butyl alcohol ^a	< 50
000	Cyclohexane ^a	< 4	301	Bromoform ^a	< 4	266	2-Chlorotoluene ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4	601	Isopropylbenzene ^a	< 4	268	4-Chlorotoluene ^a	< 4
304	Carbon tetrachloride ^a	< 4	257	Bromobenzene ^a	< 4	000	1,4-Dioxane ^a	< 4
613	1,1-Dichloropropene ^a	< 4	295	1,1,2,2-Tetrachloroethane ^a	< 4			
250	Benzene ^a	< 4	602	n-Propylbenzene ^a	< 4			

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not Reported

Date Analyzed: 5/14/2019

Analyst(s): AF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 006-930-190501
Collection Date: 5/1/2019
Collection Time: 12:40:00 PM
Collected By: HELGANS



Sample ID: ZQ00073
Submission Date: 5/1/2019
Lab Number: 05-19-00073
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey- BOMARC Westhampton, S-20/ shooting range bottom
VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethenylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

*Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not reported

Date Analyzed: 5/25/2019

Analyst(s): PF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 006-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 12:40 PM
Type: IND



Lab#: 05-19-00073

Submission Date: 5/1/2019
Submission Time: 04:02 PM
Labworks ID: ZQ00073
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey- BOMARC Westhampton, S-20/ shooting range bottom

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	2068.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	< 100	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	1885.	ug/g
C0100	Iron ^a	2201.	ug/g
C0123	Lead ^a	836.	ug/g
C0109	Magnesium ^a	138.	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	< 100	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	86.0	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	< 50	ug/g

CCV1 & CCV2 Mo, Zn, Al, As, Be, Se, Ti, Na
failed 1-2%

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
% Moisture 3.8%

Date Analyzed: 5/23/2019

Analyst(s): *MC*

Date Reviewed: *6/11/19*

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

Field#: 007-930-190501

Date Collected: 5/11/19

Time Collected: 12:45
(00:00 - 24:00)Collected By: Helgens
(Last Name)Suffolk County Department of Health Services
Division of Environmental Quality
Public & Environmental Health Laboratory
ELAP#10528

Analysis Request Form

Sample ID: ZQ00074

Field #: 007-930-190501

Collected: 5/11/19

Location Code: INDBOMARC



ZQ00074

Source of Sample

(to appear on reports)

BOMARC Westhampton

S-21 Shooting Range Collection

Treatment

Collection Point:

☐ Sanitary Pool☐ Septic Tank☐ Storm Drain☐ SPDES Outfall☐ Tank☐ Kitchen☐ Bathroom☐ Outside Tap☐ Well☒ Other

Surface Sample

Temperature Control (°C)

9

☐ Flamed Tap☒ Soil VOC (2 oz.) + 1,4-Dioxane☒ Soil VOA (40 mL) + 1,4-Dioxane☐ Liquid VOC (40 mL X 2) + 1,4-Dioxane☐ Chlorinated Pesticides ☐ Dacthal☐ Microextractables ☐ Cyanide☐ Chlorinated Acids ☐ TCLP☐ Total Solids ☐ Oil & Grease☐ Suspended Solids☐ Dissolved Solids ☐ Hexavalent Chromium☐ Colilert / E. Coli☐ MPN☐ SPC (Standard Plate Count)☐ Enterococci☐ BT (*Aerobacillus anophagefferens*)☐ CPA-T ☐ CPA-F☐ Radiology
(Tritium, Gross Alpha, Gross Beta)☐ Flash Point☐ Metals (Filtered / Soluble)☐ pH ☐ Cond ☐ Alk☐ Inorganics¹ (NO₃, Cl, etc.)☐ Perchlorate☐ MBAS ☒ Mercury☐ Ammonia☐ TP ☐ DP☐ TN ☐ DN☒ Total Metals (raw)

* Test Well is for wells used for testing only, not for drinking water wells. Development wells are Private.

¹Includes Nitrate, Nitrite, ortho-Phosphate, Fluoride, Sulfate, Chloride and Bromide.

Total Nitrogen for SPDES requires TKN and Inorganics.

Field pH: _____ Field Conductivity(uS): _____ Field Chlorine Residual mg/L): _____ #Containers: 3

☐ VOC Aliquot(s) Preserved with HCL☐ Oil & Grease Aliquot(s) Preserved with HCL☐ Metals Aliquot(s) Preserved with HNO₃

Additional Field Data:

Chain of Custody Requested []

Custody Section

Relinquished By:

Name: Ethan Helgens

Date: 5-11-19

Signature: Ethan Helgens

Time: 15:35

Received By:

Name: Robert Felsch

Date: 5/11/19

Signature: [Signature]

Time: 15:35

Received By:

Name: _____ Date: _____

Signature: _____ Time: _____

Received By:

Name: _____ Date: _____

Signature: _____ Time: _____

Received By:

Name: _____ Date: _____

Signature: _____ Time: _____

Received By:

Name: _____ Date: _____

Signature: _____ Time: _____

Bo 51

Cu 541

Pb 575

20719

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 007-930-190501
Collection Date: 5/1/2019
Collection Time: 12:45 PM
Collected By: HELGANS



Sample ID: ZQ00074
Submission Date: 5/1/2019
Lab Number: 05-19-00074
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-21/ shooting range collection

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
616	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	< 4
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethynylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4
97	Components	

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR = Not reported

Date Analyzed: 5/14/2019

Analyst(s): RF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 007-930-190501
Collection Date: 5/1/2019
Collection Time: 12:45:00 PM
Collected By: HELGANS



Sample ID: ZQ00074
Submission Date: 5/1/2019
Lab Number: 05-19-00074
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-21/ shooting range collection
VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether ^a	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethane ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethane ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethynylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not reported

Date Analyzed: 5/25/2019

Analyst(s): RF JC Report Date: 6/12/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 007-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 12:45 PM
Type: IND

Lab#: 05-19-00074

Submission Date: 5/1/2019
Submission Time: 04:02 PM
Labworks ID: ZQ00074
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton, S-21/ shooting range collection

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	3664.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	51.0	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	865.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	541.	ug/g
C0100	Iron ^a	4081.	ug/g
C0123	Lead ^a	575.	ug/g
C0109	Magnesium ^a	412.	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	158.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0128	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	719.	ug/g

CCV1 As,Cd,Co,Mo,Pb,Sb,Se,Sn,Tl,Zn,Al,
Na failed 1-10%

25 Components Note: Results based on wet weight (as received).
*Analyte covered under ELAP accreditation for solid and hazardous waste.
% Moisture 6.2%

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

*Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 008-930-190501
Collection Date: 5/1/2019
Collection Time: 12:50 PM
Collected By: HELGANS



Sample ID: ZQ00075
Submission Date: 5/1/2019
Lab Number: 05-19-00075
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-22 initial

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)	DB#	Analyte	Conc.(ppb)	DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR	651	tert-Amyl methyl ether	< 4	433	1,2,3-Trichloropropane ^a	NR
610	Chloromethane ^a	< 4	324	1,2-Dichloroethane ^a	< 4	434	p-Ethyltoluene	NR
306	Vinyl chloride ^a	< 4	310	Trichloroethene ^a	< 4	419	1,3,5-Trimethylbenzene ^a	NR
611	Bromomethane ^a	< 4	000	Methyl cyclohexane ^a	NR	418	1,2,4-Trimethylbenzene ^a	NR
612	Chloroethane ^a	< 4	405	1,2-Dichloropropane ^a	< 4	603	tert-Butylbenzene ^a	NR
439	Trichlorofluoromethane ^a	< 4	458	Methyl methacrylate ^a	< 4	604	sec-Butylbenzene ^a	NR
453	Diethyl ether ^a	< 4	292	Dibromomethane ^a	< 4	460	d-Limonene	NR
320	Freon 113 ^a	< 4	302	Bromodichloromethane ^a	< 4	605	p-Isopropyltoluene ^a	NR
307	1,1-Dichloroethene ^a	< 4	468	2-Nitropropane ^a	< 20	462	1,3-Dichlorobenzene ^a	NR
454	Methyl iodide ^a	NR	452	2-Chloroethyl vinyl ether ^a	NR	463	1,4-Dichlorobenzene ^a	NR
618	Acetone ^a	NR	407	cis-1,3-Dichloropropene ^a	< 4	432	p-Diethylbenzene	NR
455	Carbon Disulfide ^a	7.	459	Methyl isobutyl ketone ^a	26.	852	trans-decahydronaphthalene	NR
466	Allyl chloride ^a	< 4	251	Toluene ^a	180.	606	n-Butylbenzene ^a	NR
305	Methylene chloride ^a	< 4	485	Methyl isothiocyanate	< 4	412	1,2-Dichlorobenzene ^a	NR
309	trans-1,2-Dichloroethene ^a	< 4	408	trans-1,3-Dichloropropene ^a	< 4	653	cis-decahydronaphthalene	NR
614	tert-Butyl methyl ether ^a	< 4	469	Ethyl methacrylate ^a	NR	435	1,2,4,5-Tetramethylbenzene	NR
456	Acrylonitrile ^a	< 4	322	1,1,2-Trichloroethane ^a	< 4	608	1,2-Dibromo-3-chloropropane ^a	NR
323	1,1-Dichloroethane ^a	< 4	311	Tetrachloroethane ^a	< 4	437	1,2,4-Trichlorobenzene ^a	NR
457	Vinyl acetate ^a	NR	451	1,3-Dichloropropane ^a	< 4	607	Hexachlorobutadiene ^a	NR
650	tert-Butyl ethyl ether	< 4	474	2-Hexanone ^a	< 4	701	Naphthalene ^a	NR
450	2,2-Dichloropropane ^a	< 4	475	n-Butyl acetate	< 4	438	1,2,3-Trichlorobenzene ^a	NR
308	cis-1,2-Dichloroethene ^a	< 4	303	Chlorodibromomethane ^a	< 4	854	Hexane	45.
619	Methyl ethyl ketone ^a	43.	293	1,2-Dibromoethane ^a	< 4	855	Octane	< 10
000	Ethyl acetate ^a	< 20	258	Chlorobenzene ^a	21.	656	Nonane	< 10
473	Propionitrile ^a	< 4	259	Ethylbenzene ^a	NR	657	Decane	NR
621	Tetrahydrofuran	< 4	409	1,1,1,2-Tetrachloroethane ^a	< 4	658	Undecane	NR
290	Bromochloromethane ^a	< 4	255	Total Xylene ^a	NR	467	Methyl acrylonitrile ^a	< 4
300	Chloroform ^a	< 4	600	Ethynylbenzene (Styrene) ^a	< 4	000	tert-butyl alcohol ^a	< 50
000	Cyclohexane ^a	82.	301	Bromoform ^a	< 4	268	2-Chlorotoluene ^a	NR
321	1,1,1-Trichloroethane ^a	< 4	601	Isopropylbenzene ^a	NR	268	4-Chlorotoluene ^a	NR
304	Carbon tetrachloride ^a	< 4	257	Bromobenzene ^a	NR	000	1,4-Dioxane ^a	< 4
613	1,1-Dichloropropene ^a	< 4	295	1,1,2,2-Tetrachloroethane ^a	NR			
250	Benzene ^a	48.	602	n-Propylbenzene ^a	NR			

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Comments: NR - Not reported analytes associated with
Surrogate std not within acceptable limits.

Date Analyzed: 5/14/2019

Analyst(s): JK Report Date: 6/13/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **008-930-190501**
Collection Date: **5/1/2019**
Collection Time: **12:50:00 PM**
Collected By: **HELGANS**



Sample ID: **ZQ00075**
Submission Date: **5/1/2019**
Lab Number: **05-19-00075**
Sample Type: **Solid**
TC: **0.9°C (0-6 Acceptable)**

Source: **Bomarc Survey BOMARC Westhampton, S-22 initial**

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	250.
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	330.
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	310.

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	5,000.
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	990.
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	2,700.
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	20,000.
600	Ethenylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	2,900.
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	6,700.

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	12,000.
419	1,3,5-Trimethylbenzene ^a	16,000.
418	1,2,4-Trimethylbenzene ^a	65,000.
603	tert-Butylbenzene ^a	230.
604	sec-Butylbenzene ^a	6,700.
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	5,600.
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	30,000.
652	trans-decahydronaphthalene	29,000.
606	n-Butylbenzene ^a	11,000.
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	33,000.
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	9,000.
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	27,000.
656	Nonane	120,000.
657	Decane	180,000.
658	Undecane	140,000.
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: *NR = Not reported*

Date Analyzed: 5/25/2019

Analyst(s): *RF JC* Report Date: 6/13/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS



Field#: 008-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 12:50 PM
Type: IND

Lab#: 05-19-00075

Submission Date: 5/1/2019
Submission Time: 04:03 PM
Labworks ID: ZQ00075
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton, S-22 initial

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	13408.	ug/g
C0427	Antimony ^a	< 50.	ug/g
C0120	Arsenic ^a	< 50.	ug/g
C0121	Barium ^a	4489.	ug/g
C0426	Beryllium ^a	< 50.	ug/g
C0122	Cadmium ^a	< 50.	ug/g
C0108	Calcium ^a	24578.	ug/g
C0104	Chromium ^a	54.0	ug/g
C0128	Cobalt ^a	< 50.	ug/g
C0102	Copper ^a	19536.	ug/g
C0100	Iron ^a	22569.	ug/g
C0123	Lead ^a	178.	ug/g
C0109	Magnesium ^a	12997.	ug/g
C0101	Manganese ^a	166.	ug/g
C0129	Molybdenum ^a	< 50.	ug/g
C0131	Nickel ^a	< 50.	ug/g
C0107	Potassium ^a	9842.	ug/g
C0125	Selenium ^a	< 50.	ug/g
C0126	Silver ^a	< 50.	ug/g
C0106	Sodium ^a	763.	ug/g
C0117	Strontium ^a	3330.	ug/g
C0425	Thallium ^a	< 50.	ug/g
C0118	Tin ^a	58.0	ug/g
C0115	Vanadium ^a	< 50.	ug/g
C0103	Zinc ^a	136.	ug/g

CCV1 As,Cd,Co,Mo,Pb,Sb,Se,Sn,Tl,Zn,Al
Na failed 1-10%

25 Components Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture	72.5%

Date Analyzed: 5/23/2019

Analyst(s): *ME*

Date Reviewed: *6/11/19*

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: **009-930-190501**
Collection Date: **5/1/2019**
Collection Time: **1:15 PM**
Collected By: **HELGANS**



Sample ID: **ZQ00076**
Submission Date: **5/1/2019**
Lab Number: **05-19-00076**
Sample Type: **Soil**
TC: **0.9°C (0-6 Acceptable)**

Source: **Bomarc Survey BOMARC Westhampton/ S-23 initial**

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)	DB#	Analyte	Conc.(ppb)	DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR	651	tert-Amyl methyl ether	< 4	433	1,2,3-Trichloropropane ^a	< 4
610	Chloromethane ^a	< 4	324	1,2-Dichloroethane ^a	< 4	434	p-Ethyltoluene	< 4
306	Vinyl chloride ^a	< 4	310	Trichloroethene ^a	< 4	419	1,3,5-Trimethylbenzene ^a	< 4
611	Bromomethane ^a	< 4	000	Methyl cyclohexane ^a	< 4	418	1,2,4-Trimethylbenzene ^a	< 4
612	Chloroethane ^a	< 4	405	1,2-Dichloropropane ^a	< 4	603	tert-Butylbenzene ^a	< 4
439	Trichlorofluoromethane ^a	< 4	458	Methyl methacrylate ^a	< 4	604	sec-Butylbenzene ^a	< 4
453	Diethyl ether ^a	< 4	292	Dibromomethane ^a	< 4	460	d-Limonene	< 4
320	Freon 113 ^a	< 4	302	Bromodichloromethane ^a	< 4	605	p-Isopropyltoluene ^a	< 4
307	1,1-Dichloroethene ^a	< 4	468	2-Nitropropane ^a	< 20	462	1,3-Dichlorobenzene ^a	< 4
454	Methyl iodide ^a	NR	452	2-Chloroethyl vinyl ether ^a	NR	463	1,4-Dichlorobenzene ^a	< 4
618	Acetone ^a	< 10	407	cis-1,3-Dichloropropene ^a	< 4	432	p-Diethylbenzene	< 4
455	Carbon Disulfide ^a	< 4	459	Methyl isobutyl ketone ^a	< 4	652	trans-decahydronaphthalene	< 4
466	Allyl chloride ^a	< 4	251	Toluene ^a	< 4	606	n-Butylbenzene ^a	< 4
305	Methylene chloride ^a	< 4	465	Methyl isothiocyanate	< 4	412	1,2-Dichlorobenzene ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4	408	trans-1,3-Dichloropropene ^a	< 4	653	cis-decahydronaphthalene	< 4
614	tert-Butyl methyl ether ^a	< 4	469	Ethyl methacrylate ^a	NR	435	1,2,4,5-Tetramethylbenzene	< 4
456	Acrylonitrile ^a	< 4	322	1,1,2-Trichloroethane ^a	< 4	608	1,2-Dibromo-3-chloropropane ^a	< 4
323	1,1-Dichloroethane ^a	< 4	311	Tetrachloroethene ^a	< 4	437	1,2,4-Trichlorobenzene ^a	< 4
457	Vinyl acetate ^a	NR	451	1,3-Dichloropropane ^a	< 4	607	Hexachlorobutadiene ^a	< 4
650	tert-Butyl ethyl ether	< 4	474	2-Hexanone ^a	< 4	701	Naphthalene ^a	< 4
460	2,2-Dichloropropane ^a	< 4	475	n-Butyl acetate	< 4	438	1,2,3-Trichlorobenzene ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4	303	Chlorodibromomethane ^a	< 4	654	Hexane	< 10
619	Methyl ethyl ketone ^a	< 10	293	1,2-Dibromoethane ^a	< 4	655	Octane	< 10
000	Ethyl acetate ^a	< 20	258	Chlorobenzene ^a	< 4	656	Nonane	< 10
473	Propionitrile ^a	< 4	259	Ethylbenzene ^a	< 4	657	Decane	< 10
621	Tetrahydrofuran	< 4	409	1,1,1,2-Tetrachloroethane ^a	< 4	658	Undecane	32
290	Bromochloromethane ^a	< 4	255	Total Xylene ^a	< 4	467	Methyl acrylonitrile ^a	< 4
300	Chloroform ^a	< 4	600	Ethynylbenzene (Styrene) ^a	< 4	000	tert-butyl alcohol ^a	< 50
000	Cyclohexane ^a	< 4	301	Bromoform ^a	< 4	266	2-Chlorotoluene ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4	601	Isopropylbenzene ^a	< 4	268	4-Chlorotoluene ^a	< 4
304	Carbon tetrachloride ^a	< 4	257	Bromobenzene ^a	< 4	000	1,4-Dioxane ^a	< 4
613	1,1-Dichloropropene ^a	< 4	295	1,1,1,2-Tetrachloroethane ^a	< 4	97 Components		
250	Benzene ^a	< 4	602	n-Propylbenzene ^a	< 4			

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: *NR = Not reported*

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Date Analyzed: 5/14/2019

Analyst(s): *RF JC* Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528



Field Number: 009-930-190501
Collection Date: 5/1/2019
Collection Time: 1:15:00 PM
Collected By: HELGANS

Sample ID: ZQ00076
Submission Date: 5/1/2019
Lab Number: 05-19-00076
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton/ S-23 Initial
VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)	DB#	Analyte	Conc.(ug/Kg)	DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR	851	tert-Amyl methyl ether	< 200	433	1,2,3-Trichloropropane ^a	< 200
610	Chloromethane ^a	< 200	324	1,2-Dichloroethane ^a	< 200	434	p-Ethyltoluene	< 200
306	Vinyl chloride ^a	< 200	310	Trichloroethene ^a	< 200	419	1,3,5-Trimethylbenzene ^a	< 200
611	Bromomethane ^a	< 200	000	Methyl cyclohexane ^a	< 200	418	1,2,4-Trimethylbenzene ^a	< 200
612	Chloroethane ^a	< 200	405	1,2-Dichloropropane ^a	< 200	603	tert-Butylbenzene ^a	< 200
439	Trichlorofluoromethane ^a	< 200	458	Methyl methacrylate ^a	< 200	604	sec-Butylbenzene ^a	< 200
453	Diethyl ether ^a	< 200	292	Dibromomethane ^a	< 200	460	d-Limonene	< 200
320	Freon 113 ^a	< 200	302	Bromodichloromethane ^a	< 200	605	p-Isopropyltoluene ^a	< 200
307	1,1-Dichloroethene ^a	< 200	468	2-Nitropropane ^a	< 1000	462	1,3-Dichlorobenzene ^a	< 200
454	Methyl iodide ^a	< 200	452	2-Chloroethyl vinyl ether ^a	NR	463	1,4-Dichlorobenzene ^a	< 200
618	Acetone ^a	< 2000	407	dis-1,3-Dichloropropene ^a	< 200	432	p-Diethylbenzene	< 200
455	Carbon Disulfide ^a	< 200	459	Methyl isobutyl ketone ^a	< 200	652	trans-decahydronaphthalene	< 200
466	Allyl chloride ^a	< 200	251	Toluene ^a	< 200	606	n-Butylbenzene ^a	< 200
305	Methylene chloride ^a	< 200	465	Methyl isothiocyanate	< 200	412	1,2-Dichlorobenzene ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200	408	trans-1,3-Dichloropropene ^a	< 200	653	cis-decahydronaphthalene	< 200
614	tert-Butyl methyl ether ^a	< 200	469	Ethyl methacrylate ^a	NR	435	1,2,4,5-Tetramethylbenzene	< 200
456	Acrylonitrile ^a	< 200	322	1,1,2-Trichloroethane ^a	< 200	608	1,2-Dibromo-3-chloropropane ^a	< 200
323	1,1-Dichloroethane ^a	< 200	311	Tetrachloroethene ^a	< 200	437	1,2,4-Trichlorobenzene ^a	< 200
457	Vinyl acetate ^a	NR	451	1,3-Dichloropropane ^a	< 200	607	Hexachlorobutadiene ^a	< 200
650	tert-Butyl ethyl ether	< 200	474	2-Hexanone ^a	< 200	701	Naphthalene ^a	< 200
450	2,2-Dichloropropane ^a	< 200	475	n-Butyl acetate	NR	438	1,2,3-Trichlorobenzene ^a	< 200
308	dis-1,2-Dichloroethene ^a	< 200	303	Chlorodibromomethane ^a	< 200	654	Hexane	< 500
619	Methyl ethyl ketone ^a	< 2000	293	1,2-Dibromoethane ^a	< 200	655	Octane	< 500
000	Ethyl acetate ^a	< 1000	258	Chlorobenzene ^a	< 200	656	Nonane	< 5000
473	Propionitrile ^a	< 200	259	Ethylbenzene ^a	< 200	657	Decane	< 5000
621	Tetrahydrofuran	< 200	409	1,1,1,2-Tetrachloroethane ^a	< 200	658	Undecane	< 5000
290	Bromochloromethane ^a	< 200	255	Total Xylene ^a	< 200	467	Methyl acrylonitrile ^a	< 200
300	Chloroform ^a	< 200	600	Ethenylbenzene (Styrene) ^a	< 200	000	tert-butyl alcohol ^a	< 2500
000	Cyclohexane ^a	< 200	301	Bromoform ^a	< 200	266	2-Chlorotoluene ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200	601	Isopropylbenzene ^a	< 200	268	4-Chlorotoluene ^a	< 200
304	Carbon tetrachloride ^a	< 200	257	Bromobenzene ^a	< 200	623	1-Bromopropane	< 200
613	1,1-Dichloropropene ^a	< 200	295	1,1,2,2-Tetrachloroethane ^a	< 200	000	1,4-Dioxane ^a	< 200
250	Benzene ^a	< 200	602	n-Propylbenzene ^a	< 200			

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not Reported

Date Analyzed: 5/25/2019

Analyst(s): RF JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 009-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 01:15 PM
Type: IND



Lab#: 05-19-00076

Submission Date: 5/1/2019
Submission Time: 04:05 PM
Labworks ID: ZQ00076
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton/ S-23 initial

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	3990.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	188.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	3771.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	258.	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	145.	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	< 50	ug/g

CCV1 As, Cd, Co, Mo, Pb, Sb, Se, Sn, Ti, Zn Al,
Na failed 1-10%; LFM high for
Al, Ca, Fe, Mn, Na LFM low for Be, Sh, Ti, BS ✓

25 Components Note: Results based on wet weight (as received).
^a-Analyte covered under ELAP accreditation for solid and hazardous waste.
% Moisture 13.2%

Date Analyzed: 5/28/2019

Analyst(s): ME

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 010-930-190501
Collection Date: 5/1/2019
Collection Time: 3:30 PM
Collected By: HELGANS



Sample ID: ZQ00077
Submission Date: 5/1/2019
Lab Number: 05-19-00077
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton S-24 initial

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	< 4
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethenylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	12.
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
266	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

*Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☒ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not reported

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Date Analyzed: 5/14/2019

Analyst(s): RF TC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528



Field Number: 010-930-190501
Collection Date: 5/1/2019
Collection Time: 3:30:00 PM
Collected By: HELGANS

Sample ID: ZQ00077
Submission Date: 5/1/2019
Lab Number: 05-19-00077
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton\ S-24 initial
VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobutadiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
- ☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not reported

Date Analyzed: 5/25/2019

Analyst(s): JFC JC Report Date: 6/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 010-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 03:30 PM
Type: IND



Lab#: 05-19-00077

Submission Date: 5/1/2019
Submission Time: 04:05 PM
Labworks ID: ZQ00077
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton\ S-24 initial

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units
C0132	Aluminum ^a	796.	ug/g
C0427	Antimony ^a	< 50	ug/g
C0120	Arsenic ^a	< 50	ug/g
C0121	Barium ^a	< 50	ug/g
C0426	Beryllium ^a	< 50	ug/g
C0122	Cadmium ^a	< 50	ug/g
C0108	Calcium ^a	130.	ug/g
C0104	Chromium ^a	< 50	ug/g
C0128	Cobalt ^a	< 50	ug/g
C0102	Copper ^a	< 50	ug/g
C0100	Iron ^a	1042.	ug/g
C0123	Lead ^a	< 50	ug/g
C0109	Magnesium ^a	< 100	ug/g
C0101	Manganese ^a	< 50	ug/g
C0129	Molybdenum ^a	< 50	ug/g
C0131	Nickel ^a	< 50	ug/g
C0107	Potassium ^a	< 100	ug/g
C0125	Selenium ^a	< 50	ug/g
C0126	Silver ^a	< 50	ug/g
C0106	Sodium ^a	< 100	ug/g
C0117	Strontium ^a	< 50	ug/g
C0425	Thallium ^a	< 50	ug/g
C0116	Tin ^a	< 50	ug/g
C0115	Vanadium ^a	< 50	ug/g
C0103	Zinc ^a	< 50	ug/g

CCV1 As,Mo,Se,Sn,Tl,Zn,Be,Cd,Co,Pb failed 5-2%, CCV2 Al,Ca,Fe,Na failed 3-1%

25 Components Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture

PENDING mg/Kg

Date Analyzed: 5/23/2019

Analyst(s): ME

Date Reviewed: 6/14/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 011-930-190501
Collection Date: 5/1/2019
Collection Time: 1:50 PM
Collected By: HELGANS



Sample ID: ZQ00078
Submission Date: 5/1/2019
Lab Number: 05-19-00078
Sample Type: Soil
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-25 initial

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-L

DB#	Analyte	Conc.(ppb)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 4
306	Vinyl chloride ^a	< 4
611	Bromomethane ^a	< 4
612	Chloroethane ^a	< 4
439	Trichlorofluoromethane ^a	< 4
453	Diethyl ether ^a	< 4
320	Freon 113 ^a	< 4
307	1,1-Dichloroethene ^a	< 4
454	Methyl iodide ^a	NR
618	Acetone ^a	< 10
455	Carbon Disulfide ^a	< 4
466	Allyl chloride ^a	< 4
305	Methylene chloride ^a	< 4
309	trans-1,2-Dichloroethene ^a	< 4
614	tert-Butyl methyl ether ^a	< 4
456	Acrylonitrile ^a	< 4
323	1,1-Dichloroethane ^a	< 4
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 4
450	2,2-Dichloropropane ^a	< 4
308	cis-1,2-Dichloroethene ^a	< 4
619	Methyl ethyl ketone ^a	< 10
000	Ethyl acetate ^a	< 20
473	Propionitrile ^a	< 4
621	Tetrahydrofuran	< 4
290	Bromochloromethane ^a	< 4
300	Chloroform ^a	< 4
000	Cyclohexane ^a	< 4
321	1,1,1-Trichloroethane ^a	< 4
304	Carbon tetrachloride ^a	< 4
613	1,1-Dichloropropene ^a	< 4
250	Benzene ^a	< 4

DB#	Analyte	Conc.(ppb)
651	tert-Amyl methyl ether	< 4
324	1,2-Dichloroethane ^a	< 4
310	Trichloroethene ^a	< 4
000	Methyl cyclohexane ^a	< 4
405	1,2-Dichloropropane ^a	< 4
458	Methyl methacrylate ^a	< 4
292	Dibromomethane ^a	< 4
302	Bromodichloromethane ^a	< 4
468	2-Nitropropane ^a	< 20
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 4
459	Methyl isobutyl ketone ^a	< 4
251	Toluene ^a	< 4
465	Methyl isothiocyanate	< 4
408	trans-1,3-Dichloropropene ^a	< 4
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 4
311	Tetrachloroethene ^a	< 4
451	1,3-Dichloropropane ^a	< 4
474	2-Hexanone ^a	< 4
475	n-Butyl acetate	< 4
303	Chlorodibromomethane ^a	< 4
293	1,2-Dibromoethane ^a	< 4
258	Chlorobenzene ^a	< 4
259	Ethylbenzene ^a	< 4
409	1,1,1,2-Tetrachloroethane ^a	< 4
255	Total Xylene ^a	< 4
600	Ethenylbenzene (Styrene) ^a	< 4
301	Bromoform ^a	< 4
601	Isopropylbenzene ^a	< 4
257	Bromobenzene ^a	< 4
295	1,1,2,2-Tetrachloroethane ^a	< 4
602	n-Propylbenzene ^a	< 4

DB#	Analyte	Conc.(ppb)
433	1,2,3-Trichloropropane ^a	< 4
434	p-Ethyltoluene	< 4
419	1,3,5-Trimethylbenzene ^a	< 4
418	1,2,4-Trimethylbenzene ^a	< 4
603	tert-Butylbenzene ^a	< 4
604	sec-Butylbenzene ^a	< 4
460	d-Limonene	< 4
605	p-Isopropyltoluene ^a	< 4
462	1,3-Dichlorobenzene ^a	< 4
463	1,4-Dichlorobenzene ^a	< 4
432	p-Diethylbenzene	< 4
652	trans-decahydronaphthalene	< 4
606	n-Butylbenzene ^a	< 4
412	1,2-Dichlorobenzene ^a	< 4
653	cis-decahydronaphthalene	< 4
435	1,2,4,5-Tetramethylbenzene	< 4
608	1,2-Dibromo-3-chloropropane ^a	< 4
437	1,2,4-Trichlorobenzene ^a	< 4
607	Hexachlorobutadiene ^a	< 4
701	Naphthalene ^a	< 4
438	1,2,3-Trichlorobenzene ^a	< 4
654	Hexane	< 10
655	Octane	< 10
656	Nonane	< 10
657	Decane	< 10
658	Undecane	< 10
467	Methyl acrylonitrile ^a	< 4
000	tert-butyl alcohol ^a	< 50
256	2-Chlorotoluene ^a	< 4
268	4-Chlorotoluene ^a	< 4
000	1,4-Dioxane ^a	< 4

97 Components

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments:

NR = Not reported

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Date Analyzed: 5/14/2019

Analyst(s): PF JC Report Date: 5/12/2019

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528

Field Number: 011-930-190501
Collection Date: 5/1/2019
Collection Time: 1:50:00 PM
Collected By: HELGANS



Sample ID: ZQ00078
Submission Date: 5/1/2019
Lab Number: 05-19-00078
Sample Type: Solid
TC: 0.9°C (0-6 Acceptable)

Source: Bomarc Survey BOMARC Westhampton, S-25 initial

VOLATILE ORGANIC ANALYSIS of SOLID and HAZARDOUS WASTE - EPA Method 8260C - Prep Method 5035A-H (High Level)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

DB#	Analyte	Conc.(ug/Kg)
436	Dichlorodifluoromethane ^a	NR
610	Chloromethane ^a	< 200
306	Vinyl chloride ^a	< 200
611	Bromomethane ^a	< 200
612	Chloroethane ^a	< 200
439	Trichlorofluoromethane ^a	< 200
453	Diethyl ether ^a	< 200
320	Freon 113 ^a	< 200
307	1,1-Dichloroethene ^a	< 200
454	Methyl iodide ^a	< 200
618	Acetone ^a	< 2000
455	Carbon Disulfide ^a	< 200
466	Allyl chloride ^a	< 200
305	Methylene chloride ^a	< 200
309	trans-1,2-Dichloroethene ^a	< 200
614	tert-Butyl methyl ether ^a	< 200
456	Acrylonitrile ^a	< 200
323	1,1-Dichloroethane ^a	< 200
457	Vinyl acetate ^a	NR
650	tert-Butyl ethyl ether	< 200
450	2,2-Dichloropropane ^a	< 200
308	cis-1,2-Dichloroethene ^a	< 200
619	Methyl ethyl ketone ^a	< 2000
000	Ethyl acetate ^a	< 1000
473	Propionitrile ^a	< 200
621	Tetrahydrofuran	< 200
290	Bromochloromethane ^a	< 200
300	Chloroform ^a	< 200
000	Cyclohexane ^a	< 200
321	1,1,1-Trichloroethane ^a	< 200
304	Carbon tetrachloride ^a	< 200
613	1,1-Dichloropropene ^a	< 200
250	Benzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
651	tert-Amyl methyl ether	< 200
324	1,2-Dichloroethane ^a	< 200
310	Trichloroethene ^a	< 200
000	Methyl cyclohexane ^a	< 200
405	1,2-Dichloropropane ^a	< 200
458	Methyl methacrylate ^a	< 200
292	Dibromomethane ^a	< 200
302	Bromodichloromethane ^a	< 200
468	2-Nitropropane ^a	< 1000
452	2-Chloroethyl vinyl ether ^a	NR
407	cis-1,3-Dichloropropene ^a	< 200
459	Methyl isobutyl ketone ^a	< 200
251	Toluene ^a	< 200
465	Methyl isothiocyanate	< 200
408	trans-1,3-Dichloropropene ^a	< 200
469	Ethyl methacrylate ^a	NR
322	1,1,2-Trichloroethane ^a	< 200
311	Tetrachloroethene ^a	< 200
451	1,3-Dichloropropane ^a	< 200
474	2-Hexanone ^a	< 200
475	n-Butyl acetate	NR
303	Chlorodibromomethane ^a	< 200
293	1,2-Dibromoethane ^a	< 200
258	Chlorobenzene ^a	< 200
259	Ethylbenzene ^a	< 200
409	1,1,1,2-Tetrachloroethane ^a	< 200
255	Total Xylene ^a	< 200
600	Ethylbenzene (Styrene) ^a	< 200
301	Bromoform ^a	< 200
601	Isopropylbenzene ^a	< 200
257	Bromobenzene ^a	< 200
295	1,1,2,2-Tetrachloroethane ^a	< 200
602	n-Propylbenzene ^a	< 200

DB#	Analyte	Conc.(ug/Kg)
433	1,2,3-Trichloropropane ^a	< 200
434	p-Ethyltoluene	< 200
419	1,3,5-Trimethylbenzene ^a	< 200
418	1,2,4-Trimethylbenzene ^a	< 200
603	tert-Butylbenzene ^a	< 200
604	sec-Butylbenzene ^a	< 200
460	d-Limonene	< 200
605	p-Isopropyltoluene ^a	< 200
462	1,3-Dichlorobenzene ^a	< 200
463	1,4-Dichlorobenzene ^a	< 200
432	p-Diethylbenzene	< 200
652	trans-decahydronaphthalene	< 200
606	n-Butylbenzene ^a	< 200
412	1,2-Dichlorobenzene ^a	< 200
653	cis-decahydronaphthalene	< 200
435	1,2,4,5-Tetramethylbenzene	< 200
608	1,2-Dibromo-3-chloropropane ^a	< 200
437	1,2,4-Trichlorobenzene ^a	< 200
607	Hexachlorobuladiene ^a	< 200
701	Naphthalene ^a	< 200
438	1,2,3-Trichlorobenzene ^a	< 200
654	Hexane	< 500
655	Octane	< 500
656	Nonane	< 5000
657	Decane	< 5000
658	Undecane	< 5000
467	Methyl acrylonitrile ^a	< 200
000	tert-butyl alcohol ^a	< 2500
266	2-Chlorotoluene ^a	< 200
268	4-Chlorotoluene ^a	< 200
623	1-Bromopropane	< 200
000	1,4-Dioxane ^a	< 200

98 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste, otherwise accreditation is not offered for this category.

- ☐ GC/MS Analysis indicates presence of Hydrocarbons similar to those found in a petroleum distillate.
☐ Some surrogate standard values are not within the acceptable limits.

Comments: NR = Not reported

Date Analyzed: 5/25/2019

Analyst(s): RF JC Report Date: 6/12/2019

Page 1 of 1

SUFFOLK COUNTY DEPARTMENT OF HEALTH SERVICES
DIVISION OF ENVIRONMENTAL QUALITY
PUBLIC AND ENVIRONMENTAL HEALTH LABORATORY - ELAP #10528
SOLID and HAZARDOUS WASTE ANALYSIS

Field#: 011-930-190501

Collector: HELGANS
Collection Date: 5/1/2019
Collection Time: 01:50 PM
Type: IND



Lab#: 05-19-00078

Submission Date: 5/1/2019
Submission Time: 04:06 PM
Labworks ID: ZQ00078
TC: 0.9°C (0-6 Acceptable)

The lab is only responsible for the certified testing, and not for the integrity of the sample before laboratory receipt.

Source: Bomarc Survey BOMARC Westhampton, S-25 initial

Metals Analyses on Soil - EPA Method 6010C - Prep Method 3050B

DB#	Analyte	Result	Units	CCV1 As,Mo,Se,Sn,Tl,Zn,Be,Cd,Co,Pb failed 5-2%, CCV2 Al,Ca,Fe,Na failed 3-1%
C0132	Aluminum ^a	2710.	ug/g	
C0427	Antimony ^a	< 50	ug/g	
C0120	Arsenic ^a	< 50	ug/g	
C0121	Barium ^a	< 50	ug/g	
C0426	Beryllium ^a	< 50	ug/g	
C0122	Cadmium ^a	< 50	ug/g	
C0108	Calcium ^a	146.	ug/g	
C0104	Chromium ^a	< 50	ug/g	
C0128	Cobalt ^a	< 50	ug/g	
C0102	Copper ^a	< 50	ug/g	
C0100	Iron ^a	5251.	ug/g	
C0123	Lead ^a	< 50	ug/g	
C0109	Magnesium ^a	220.	ug/g	
C0101	Manganese ^a	< 50	ug/g	
C0129	Molybdenum ^a	< 50	ug/g	
C0131	Nickel ^a	< 50	ug/g	
C0107	Potassium ^a	104.	ug/g	
C0125	Selenium ^a	< 50	ug/g	
C0126	Silver ^a	< 50	ug/g	
C0106	Sodium ^a	< 100	ug/g	
C0117	Strontium ^a	< 50	ug/g	
C0425	Thallium ^a	< 50	ug/g	
C0116	Tin ^a	< 50	ug/g	
C0115	Vanadium ^a	< 50	ug/g	
C0103	Zinc ^a	< 50	ug/g	

25 Components

Note: Results based on wet weight (as received).

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

% Moisture

PENDING mg/Kg

Date Analyzed: 5/23/2019

Analyst(s): NE

Date Reviewed: 6/11/19

MERCURY ANALYSIS - Method SW846 7471B

DB#	Analyte	Result	Units
C0124	Mercury in Soil ^a	< 0.5	mg/Kg

^a-Analyte covered under ELAP accreditation for solid and hazardous waste.

Date Analyzed: 5/29/2019

PEHL Surface Soil Data

Concentration in ppm (dry weight adjusted values)

Metal	S-4 dry	S-7 dry	S-8 dry	S-10 dry	S-11 dry	S-12 dry	S-13 dry	S-14 dry	S-19 dry	S-20 dry	S-21 dry	S-23 dry
Aluminum	3783	3250	3982	27091	3744	4237	4545	5977	507	2150	3906	4597
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	1614	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	145	ND	ND	ND
Barium	ND	ND	ND	6567	ND	ND	ND	ND	ND	ND	54	ND
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	1565	4251	373	65007	1758	257	430	136	ND	ND	922	217
Chromium	ND	ND	ND	303	ND	ND	ND	ND	ND	ND	ND	ND
Cobalt	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	76	93	ND	1770	ND	ND	ND	ND	6427	1959	577	ND
Iron	13773	17760	6488	89786	24456	4452	24615	5664	3091	2288	4351	4344
Lead	188	77	ND	597	339	ND	78	ND	106831	869	613	ND
Magnesium	648	1562	418	27937	685	346	309	364	ND	143	439	297
Manganese	75	103	60	773	172	ND	150	ND	ND	ND	ND	ND
Molybdenum	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium	181	214	175	36717	158	167	172	201	ND	ND	168	167
Selenium	ND	ND	ND	740	ND	ND	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	ND	153	ND	3024	ND	ND	ND	ND	ND	ND	ND	ND
Strontium	ND	ND	ND	4164	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tin	ND	ND	ND	150	ND	ND	ND	ND	322	89	ND	ND
Vanadium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	132	236	134	4201	168	ND	81	ND	247	ND	767	ND

Appendix E

Laboratory Analyses

Office of Pollution Control Samples

Pace Analytical

ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S1 **Lab ID: 7087818001** Collected: 04/30/19 09:45 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<44.8	ug/kg	44.8	1	05/02/19 13:48	05/08/19 17:37	12674-11-2	R1
PCB-1221 (Aroclor 1221)	<91.0	ug/kg	91.0	1	05/02/19 13:48	05/08/19 17:37	11104-28-2	
PCB-1232 (Aroclor 1232)	<44.8	ug/kg	44.8	1	05/02/19 13:48	05/08/19 17:37	11141-16-5	
PCB-1242 (Aroclor 1242)	<44.8	ug/kg	44.8	1	05/02/19 13:48	05/08/19 17:37	53469-21-9	
PCB-1248 (Aroclor 1248)	<44.8	ug/kg	44.8	1	05/02/19 13:48	05/08/19 17:37	12672-29-6	
PCB-1254 (Aroclor 1254)	49.1	ug/kg	44.8	1	05/02/19 13:48	05/08/19 17:37	11097-69-1	R1
PCB-1260 (Aroclor 1260)	<44.8	ug/kg	44.8	1	05/02/19 13:48	05/08/19 17:37	11096-82-5	R1
PCB, Total	<91.0	ug/kg	91.0	1	05/02/19 13:48	05/08/19 17:37	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	35	%	30-150	1	05/02/19 13:48	05/08/19 17:37	877-09-8	
Decachlorobiphenyl (S)	40	%	30-150	1	05/02/19 13:48	05/08/19 17:37	2051-24-3	

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<91.4	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	83-32-9	M1,R1
Anthracene	<91.4	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	120-12-7	M1,R1
Benzo(a)anthracene	105	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	56-55-3	M1,R1
Benzo(a)pyrene	94.9	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	50-32-8	M1,R1
Benzo(b)fluoranthene	149	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	205-99-2	M1,R1
Benzo(g,h,i)perylene	<91.4	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	191-24-2	CH,L1, M0
Benzo(k)fluoranthene	<91.4	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	207-08-9	M1,R1
Chrysene	119	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	218-01-9	M1,R1
Dibenz(a,h)anthracene	<91.4	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	53-70-3	M1,R1
Dibenzofuran	<91.4	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	132-64-9	M1,R1
Fluoranthene	179	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	206-44-0	M1,R1
Fluorene	<91.4	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	86-73-7	M1,R1
Indeno(1,2,3-cd)pyrene	<91.4	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	193-39-5	M1
Phenanthrene	123	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	85-01-8	M1,R1
Pyrene	206	ug/kg	91.4	1	05/03/19 10:30	05/08/19 19:21	129-00-0	M1,R1

Surrogates

Nitrobenzene-d5 (S)	40	%	23-120	1	05/03/19 10:30	05/08/19 19:21	4165-60-0	
2-Fluorobiphenyl (S)	54	%	30-115	1	05/03/19 10:30	05/08/19 19:21	321-60-8	
p-Terphenyl-d14 (S)	78	%	18-137	1	05/03/19 10:30	05/08/19 19:21	1718-51-0	
Phenol-d5 (S)	46	%	24-113	1	05/03/19 10:30	05/08/19 19:21	4165-62-2	
2-Fluorophenol (S)	44	%	25-121	1	05/03/19 10:30	05/08/19 19:21	367-12-4	
2,4,6-Tribromophenol (S)	54	%	19-122	1	05/03/19 10:30	05/08/19 19:21	118-79-6	
2-Chlorophenol-d4 (S)	44	%	20-130	1	05/03/19 10:30	05/08/19 19:21	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	38	%	20-130	1	05/03/19 10:30	05/08/19 19:21	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	28.0	%	0.10	1		05/07/19 18:05		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S2 **Lab ID: 7087818002** Collected: 04/30/19 09:50 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	12674-11-2	
PCB-1221 (Aroclor 1221)	<1390	ug/kg	1390	20	05/02/19 13:48	05/08/19 19:38	11104-28-2	
PCB-1232 (Aroclor 1232)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	11141-16-5	
PCB-1242 (Aroclor 1242)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	53469-21-9	
PCB-1248 (Aroclor 1248)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	12672-29-6	
PCB-1254 (Aroclor 1254)	4300	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	11097-69-1	
PCB-1260 (Aroclor 1260)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	11096-82-5	
PCB, Total	4300	ug/kg	1390	20	05/02/19 13:48	05/08/19 19:38	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	97	%	30-150	20	05/02/19 13:48	05/08/19 19:38	877-09-8	
Decachlorobiphenyl (S)	126	%	30-150	20	05/02/19 13:48	05/08/19 19:38	2051-24-3	

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	83-32-9	
Anthracene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	120-12-7	
Benzo(a)anthracene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	56-55-3	
Benzo(a)pyrene	77.5	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	50-32-8	
Benzo(b)fluoranthene	111	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	205-99-2	
Benzo(g,h,i)perylene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	191-24-2	L1
Benzo(k)fluoranthene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	207-08-9	
Chrysene	73.9	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	218-01-9	
Dibenz(a,h)anthracene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	53-70-3	
Dibenzofuran	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	132-64-9	
Fluoranthene	119	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	206-44-0	
Fluorene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	86-73-7	
Indeno(1,2,3-cd)pyrene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	193-39-5	
Phenanthrene	77.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	85-01-8	
Pyrene	127	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	54	%	23-120	1	05/03/19 10:30	05/08/19 20:44	4165-60-0	
2-Fluorobiphenyl (S)	54	%	30-115	1	05/03/19 10:30	05/08/19 20:44	321-60-8	
p-Terphenyl-d14 (S)	74	%	18-137	1	05/03/19 10:30	05/08/19 20:44	1718-51-0	
Phenol-d5 (S)	53	%	24-113	1	05/03/19 10:30	05/08/19 20:44	4165-62-2	
2-Fluorophenol (S)	51	%	25-121	1	05/03/19 10:30	05/08/19 20:44	367-12-4	
2,4,6-Tribromophenol (S)	60	%	19-122	1	05/03/19 10:30	05/08/19 20:44	118-79-6	
2-Chlorophenol-d4 (S)	51	%	20-130	1	05/03/19 10:30	05/08/19 20:44	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	39	%	20-130	1	05/03/19 10:30	05/08/19 20:44	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	5.7	%	0.10	1		05/07/19 18:06		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S3 **Lab ID: 7087818003** Collected: 04/30/19 10:15 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	83-32-9	
Anthracene	629	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	120-12-7	
Benzo(a)anthracene	986	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	56-55-3	
Benzo(a)pyrene	435	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	50-32-8	
Benzo(b)fluoranthene	536	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	205-99-2	
Benzo(g,h,i)perylene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	191-24-2	L1
Benzo(k)fluoranthene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	207-08-9	
Chrysene	1240	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	218-01-9	
Dibenz(a,h)anthracene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	53-70-3	
Dibenzofuran	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	132-64-9	
Fluoranthene	1080	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	206-44-0	
Fluorene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	86-73-7	
Indeno(1,2,3-cd)pyrene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	193-39-5	
Phenanthrene	6700	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	85-01-8	
Pyrene	2790	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	33	%	23-120	1	05/03/19 10:30	05/07/19 18:21	4165-60-0	
2-Fluorobiphenyl (S)	43	%	30-115	1	05/03/19 10:30	05/07/19 18:21	321-60-8	
p-Terphenyl-d14 (S)	59	%	18-137	1	05/03/19 10:30	05/07/19 18:21	1718-51-0	
Phenol-d5 (S)	48	%	24-113	1	05/03/19 10:30	05/07/19 18:21	4165-62-2	
2-Fluorophenol (S)	44	%	25-121	1	05/03/19 10:30	05/07/19 18:21	367-12-4	
2,4,6-Tribromophenol (S)	45	%	19-122	1	05/03/19 10:30	05/07/19 18:21	118-79-6	
2-Chlorophenol-d4 (S)	40	%	20-130	1	05/03/19 10:30	05/07/19 18:21	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	32	%	20-130	1	05/03/19 10:30	05/07/19 18:21	2199-69-1	

Percent Moisture Analytical Method: ASTM D2216-92M

Percent Moisture	76.9	%	0.10	1		05/07/19 18:07

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S4 **Lab ID: 7087818004** Collected: 04/30/19 10:40 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.7	ug/kg	37.7	1	05/02/19 13:48	05/08/19 18:17	12674-11-2	
PCB-1221 (Aroclor 1221)	<76.6	ug/kg	76.6	1	05/02/19 13:48	05/08/19 18:17	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.7	ug/kg	37.7	1	05/02/19 13:48	05/08/19 18:17	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.7	ug/kg	37.7	1	05/02/19 13:48	05/08/19 18:17	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.7	ug/kg	37.7	1	05/02/19 13:48	05/08/19 18:17	12672-29-6	
PCB-1254 (Aroclor 1254)	<37.7	ug/kg	37.7	1	05/02/19 13:48	05/08/19 18:17	11097-69-1	
PCB-1260 (Aroclor 1260)	<37.7	ug/kg	37.7	1	05/02/19 13:48	05/08/19 18:17	11096-82-5	
PCB, Total	<76.6	ug/kg	76.6	1	05/02/19 13:48	05/08/19 18:17	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	40	%	30-150	1	05/02/19 13:48	05/08/19 18:17	877-09-8	
Decachlorobiphenyl (S)	54	%	30-150	1	05/02/19 13:48	05/08/19 18:17	2051-24-3	
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<78.1	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	83-32-9	
Anthracene	<78.1	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	120-12-7	
Benzo(a)anthracene	<78.1	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	56-55-3	
Benzo(a)pyrene	127	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	50-32-8	
Benzo(b)fluoranthene	264	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	205-99-2	
Benzo(g,h,i)perylene	109	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	191-24-2	CH,L1
Benzo(k)fluoranthene	89.8	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	207-08-9	
Chrysene	97.0	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	218-01-9	
Dibenz(a,h)anthracene	<78.1	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	53-70-3	
Dibenzofuran	<78.1	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	132-64-9	
Fluoranthene	<78.1	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	206-44-0	
Fluorene	<78.1	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	86-73-7	
Indeno(1,2,3-cd)pyrene	118	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	193-39-5	
Phenanthrene	<78.1	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	85-01-8	
Pyrene	89.6	ug/kg	78.1	1	05/03/19 10:30	05/08/19 21:11	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	64	%	23-120	1	05/03/19 10:30	05/08/19 21:11	4165-60-0	
2-Fluorobiphenyl (S)	61	%	30-115	1	05/03/19 10:30	05/08/19 21:11	321-60-8	
p-Terphenyl-d14 (S)	77	%	18-137	1	05/03/19 10:30	05/08/19 21:11	1718-51-0	
Phenol-d5 (S)	57	%	24-113	1	05/03/19 10:30	05/08/19 21:11	4165-62-2	
2-Fluorophenol (S)	51	%	25-121	1	05/03/19 10:30	05/08/19 21:11	367-12-4	
2,4,6-Tribromophenol (S)	64	%	19-122	1	05/03/19 10:30	05/08/19 21:11	118-79-6	
2-Chlorophenol-d4 (S)	56	%	20-130	1	05/03/19 10:30	05/08/19 21:11	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	49	%	20-130	1	05/03/19 10:30	05/08/19 21:11	2199-69-1	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	14.9	%	0.10	1		05/07/19 18:09		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S5 **Lab ID: 7087818005** Collected: 04/30/19 12:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	124	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	83-32-9	
Anthracene	191	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	120-12-7	
Benzo(a)anthracene	579	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	56-55-3	
Benzo(a)pyrene	526	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	50-32-8	
Benzo(b)fluoranthene	749	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	205-99-2	
Benzo(g,h,i)perylene	162	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	191-24-2	CH,L1
Benzo(k)fluoranthene	384	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	207-08-9	
Chrysene	586	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	218-01-9	
Dibenz(a,h)anthracene	<70.6	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	53-70-3	
Dibenzofuran	<70.6	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	132-64-9	
Fluoranthene	1230	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	206-44-0	
Fluorene	96.8	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	86-73-7	
Indeno(1,2,3-cd)pyrene	200	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	193-39-5	
Phenanthrene	1110	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	85-01-8	
Pyrene	1340	ug/kg	70.6	1	05/03/19 10:30	05/08/19 21:40	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	69	%	23-120	1	05/03/19 10:30	05/08/19 21:40	4165-60-0	
2-Fluorobiphenyl (S)	68	%	30-115	1	05/03/19 10:30	05/08/19 21:40	321-60-8	
p-Terphenyl-d14 (S)	91	%	18-137	1	05/03/19 10:30	05/08/19 21:40	1718-51-0	
Phenol-d5 (S)	64	%	24-113	1	05/03/19 10:30	05/08/19 21:40	4165-62-2	
2-Fluorophenol (S)	60	%	25-121	1	05/03/19 10:30	05/08/19 21:40	367-12-4	
2,4,6-Tribromophenol (S)	72	%	19-122	1	05/03/19 10:30	05/08/19 21:40	118-79-6	
2-Chlorophenol-d4 (S)	62	%	20-130	1	05/03/19 10:30	05/08/19 21:40	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	48	%	20-130	1	05/03/19 10:30	05/08/19 21:40	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	8.0	%	0.10	1	05/07/19 18:10

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S6 **Lab ID: 7087818006** Collected: 04/30/19 11:00 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	141	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	83-32-9	
Anthracene	256	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	120-12-7	
Benzo(a)anthracene	881	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	56-55-3	
Benzo(a)pyrene	769	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	50-32-8	
Benzo(b)fluoranthene	1170	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	205-99-2	
Benzo(g,h,i)perylene	269	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	191-24-2	CH,L1
Benzo(k)fluoranthene	590	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	207-08-9	
Chrysene	887	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	218-01-9	
Dibenz(a,h)anthracene	78.5	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	53-70-3	
Dibenzofuran	<78.0	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	132-64-9	
Fluoranthene	1810	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	206-44-0	
Fluorene	98.5	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	86-73-7	
Indeno(1,2,3-cd)pyrene	335	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	193-39-5	
Phenanthrene	1430	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	85-01-8	
Pyrene	2140	ug/kg	78.0	1	05/03/19 10:30	05/08/19 22:07	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	51	%	23-120	1	05/03/19 10:30	05/08/19 22:07	4165-60-0	
2-Fluorobiphenyl (S)	55	%	30-115	1	05/03/19 10:30	05/08/19 22:07	321-60-8	
p-Terphenyl-d14 (S)	81	%	18-137	1	05/03/19 10:30	05/08/19 22:07	1718-51-0	
Phenol-d5 (S)	45	%	24-113	1	05/03/19 10:30	05/08/19 22:07	4165-62-2	
2-Fluorophenol (S)	29	%	25-121	1	05/03/19 10:30	05/08/19 22:07	367-12-4	
2,4,6-Tribromophenol (S)	54	%	19-122	1	05/03/19 10:30	05/08/19 22:07	118-79-6	
2-Chlorophenol-d4 (S)	39	%	20-130	1	05/03/19 10:30	05/08/19 22:07	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	37	%	20-130	1	05/03/19 10:30	05/08/19 22:07	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	15.5	%	0.10	1	05/07/19 18:11

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S7 **Lab ID: 7087818007** Collected: 04/30/19 11:20 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<765	ug/kg	765	20	05/02/19 13:48	05/08/19 19:52	12674-11-2	
PCB-1221 (Aroclor 1221)	<1550	ug/kg	1550	20	05/02/19 13:48	05/08/19 19:52	11104-28-2	
PCB-1232 (Aroclor 1232)	<765	ug/kg	765	20	05/02/19 13:48	05/08/19 19:52	11141-16-5	
PCB-1242 (Aroclor 1242)	<765	ug/kg	765	20	05/02/19 13:48	05/08/19 19:52	53469-21-9	
PCB-1248 (Aroclor 1248)	<765	ug/kg	765	20	05/02/19 13:48	05/08/19 19:52	12672-29-6	
PCB-1254 (Aroclor 1254)	6310	ug/kg	765	20	05/02/19 13:48	05/08/19 19:52	11097-69-1	
PCB-1260 (Aroclor 1260)	<765	ug/kg	765	20	05/02/19 13:48	05/08/19 19:52	11096-82-5	
PCB, Total	6310	ug/kg	1550	20	05/02/19 13:48	05/08/19 19:52	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	64	%	30-150	20	05/02/19 13:48	05/08/19 19:52	877-09-8	
Decachlorobiphenyl (S)	127	%	30-150	20	05/02/19 13:48	05/08/19 19:52	2051-24-3	

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<77.9	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	83-32-9	
Anthracene	<77.9	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	120-12-7	
Benzo(a)anthracene	266	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	56-55-3	
Benzo(a)pyrene	271	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	50-32-8	
Benzo(b)fluoranthene	446	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	205-99-2	
Benzo(g,h,i)perylene	109	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	191-24-2	CH,L1
Benzo(k)fluoranthene	203	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	207-08-9	
Chrysene	378	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	218-01-9	
Dibenz(a,h)anthracene	<77.9	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	53-70-3	
Dibenzofuran	<77.9	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	132-64-9	
Fluoranthene	596	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	206-44-0	
Fluorene	<77.9	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	86-73-7	
Indeno(1,2,3-cd)pyrene	126	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	193-39-5	
Phenanthrene	500	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	85-01-8	
Pyrene	659	ug/kg	77.9	1	05/03/19 10:30	05/08/19 22:35	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	48	%	23-120	1	05/03/19 10:30	05/08/19 22:35	4165-60-0	
2-Fluorobiphenyl (S)	50	%	30-115	1	05/03/19 10:30	05/08/19 22:35	321-60-8	
p-Terphenyl-d14 (S)	72	%	18-137	1	05/03/19 10:30	05/08/19 22:35	1718-51-0	
Phenol-d5 (S)	46	%	24-113	1	05/03/19 10:30	05/08/19 22:35	4165-62-2	
2-Fluorophenol (S)	36	%	25-121	1	05/03/19 10:30	05/08/19 22:35	367-12-4	
2,4,6-Tribromophenol (S)	51	%	19-122	1	05/03/19 10:30	05/08/19 22:35	118-79-6	
2-Chlorophenol-d4 (S)	42	%	20-130	1	05/03/19 10:30	05/08/19 22:35	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	37	%	20-130	1	05/03/19 10:30	05/08/19 22:35	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	15.5	%	0.10	1	05/07/19 18:12			

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S8 Lab ID: 7087818008 Collected: 04/30/19 11:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.2	ug/kg	36.2	1	05/02/19 13:48	05/08/19 18:31	12674-11-2	
PCB-1221 (Aroclor 1221)	<73.4	ug/kg	73.4	1	05/02/19 13:48	05/08/19 18:31	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.2	ug/kg	36.2	1	05/02/19 13:48	05/08/19 18:31	11141-16-5	
PCB-1242 (Aroclor 1242)	125	ug/kg	36.2	1	05/02/19 13:48	05/08/19 18:31	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.2	ug/kg	36.2	1	05/02/19 13:48	05/08/19 18:31	12672-29-6	
PCB-1254 (Aroclor 1254)	193	ug/kg	36.2	1	05/02/19 13:48	05/08/19 18:31	11097-69-1	
PCB-1260 (Aroclor 1260)	105	ug/kg	36.2	1	05/02/19 13:48	05/08/19 18:31	11096-82-5	
PCB, Total	317	ug/kg	73.4	1	05/02/19 13:48	05/08/19 18:31	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	77	%	30-150	1	05/02/19 13:48	05/08/19 18:31	877-09-8	
Decachlorobiphenyl (S)	129	%	30-150	1	05/02/19 13:48	05/08/19 18:31	2051-24-3	

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	1860	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	83-32-9	
Anthracene	3730	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	120-12-7	
Benzo(a)anthracene	10600	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	56-55-3	
Benzo(a)pyrene	7870	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	50-32-8	
Benzo(b)fluoranthene	11900	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	205-99-2	
Benzo(g,h,i)perylene	2040	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	191-24-2	CH,L1
Benzo(k)fluoranthene	5390	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	207-08-9	
Chrysene	10100	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	218-01-9	
Dibenz(a,h)anthracene	<729	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	53-70-3	
Dibenzofuran	845	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	132-64-9	
Fluoranthene	20300	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	206-44-0	
Fluorene	1670	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	86-73-7	
Indeno(1,2,3-cd)pyrene	2880	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	193-39-5	
Phenanthrene	17500	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	85-01-8	
Pyrene	23100	ug/kg	729	10	05/03/19 10:30	05/09/19 00:25	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	45	%	23-120	10	05/03/19 10:30	05/09/19 00:25	4165-60-0	
2-Fluorobiphenyl (S)	34	%	30-115	10	05/03/19 10:30	05/09/19 00:25	321-60-8	
p-Terphenyl-d14 (S)	64	%	18-137	10	05/03/19 10:30	05/09/19 00:25	1718-51-0	
Phenol-d5 (S)	38	%	24-113	10	05/03/19 10:30	05/09/19 00:25	4165-62-2	
2-Fluorophenol (S)	38	%	25-121	10	05/03/19 10:30	05/09/19 00:25	367-12-4	
2,4,6-Tribromophenol (S)	33	%	19-122	10	05/03/19 10:30	05/09/19 00:25	118-79-6	
2-Chlorophenol-d4 (S)	43	%	20-130	10	05/03/19 10:30	05/09/19 00:25	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	26	%	20-130	10	05/03/19 10:30	05/09/19 00:25	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	9.9	%	0.10	1	05/07/19 18:13			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S9 **Lab ID: 7087818009** Collected: 04/30/19 11:50 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<71.2	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	83-32-9	
Anthracene	73.1	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	120-12-7	
Benzo(a)anthracene	271	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	56-55-3	
Benzo(a)pyrene	223	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	50-32-8	
Benzo(b)fluoranthene	366	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	205-99-2	
Benzo(g,h,i)perylene	94.8	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	191-24-2	CH,L1
Benzo(k)fluoranthene	141	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	207-08-9	
Chrysene	277	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	218-01-9	
Dibenz(a,h)anthracene	<71.2	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	53-70-3	
Dibenzofuran	<71.2	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	132-64-9	
Fluoranthene	485	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	206-44-0	
Fluorene	<71.2	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	86-73-7	
Indeno(1,2,3-cd)pyrene	110	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	193-39-5	
Phenanthrene	400	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	85-01-8	
Pyrene	588	ug/kg	71.2	1	05/03/19 10:30	05/08/19 18:54	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	60	%	23-120	1	05/03/19 10:30	05/08/19 18:54	4165-60-0	
2-Fluorobiphenyl (S)	63	%	30-115	1	05/03/19 10:30	05/08/19 18:54	321-60-8	
p-Terphenyl-d14 (S)	75	%	18-137	1	05/03/19 10:30	05/08/19 18:54	1718-51-0	
Phenol-d5 (S)	61	%	24-113	1	05/03/19 10:30	05/08/19 18:54	4165-62-2	
2-Fluorophenol (S)	54	%	25-121	1	05/03/19 10:30	05/08/19 18:54	367-12-4	
2,4,6-Tribromophenol (S)	64	%	19-122	1	05/03/19 10:30	05/08/19 18:54	118-79-6	
2-Chlorophenol-d4 (S)	58	%	20-130	1	05/03/19 10:30	05/08/19 18:54	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	40	%	20-130	1	05/03/19 10:30	05/08/19 18:54	2199-69-1	

Percent Moisture Analytical Method: ASTM D2216-92M

Percent Moisture	7.3	%	0.10	1		05/07/19 18:14

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S10 Lab ID: 7087818010 Collected: 04/30/19 12:00 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	83-32-9	
Anthracene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	120-12-7	
Benzo(a)anthracene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	56-55-3	
Benzo(a)pyrene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	50-32-8	
Benzo(b)fluoranthene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	205-99-2	
Benzo(g,h,i)perylene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	191-24-2	L1
Benzo(k)fluoranthene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	207-08-9	
Chrysene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	218-01-9	
Dibenz(a,h)anthracene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	53-70-3	
Dibenzofuran	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	132-64-9	
Fluoranthene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	206-44-0	
Fluorene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	86-73-7	
Indeno(1,2,3-cd)pyrene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	193-39-5	
Phenanthrene	1580	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	85-01-8	
Pyrene	<758	ug/kg	758	10	05/03/19 10:30	05/07/19 21:20	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	84	%	23-120	10	05/03/19 10:30	05/07/19 21:20	4165-60-0	
2-Fluorobiphenyl (S)	73	%	30-115	10	05/03/19 10:30	05/07/19 21:20	321-60-8	
p-Terphenyl-d14 (S)	79	%	18-137	10	05/03/19 10:30	05/07/19 21:20	1718-51-0	
Phenol-d5 (S)	66	%	24-113	10	05/03/19 10:30	05/07/19 21:20	4165-62-2	
2-Fluorophenol (S)	60	%	25-121	10	05/03/19 10:30	05/07/19 21:20	367-12-4	
2,4,6-Tribromophenol (S)	93	%	19-122	10	05/03/19 10:30	05/07/19 21:20	118-79-6	
2-Chlorophenol-d4 (S)	62	%	20-130	10	05/03/19 10:30	05/07/19 21:20	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	52	%	20-130	10	05/03/19 10:30	05/07/19 21:20	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	13.0	%	0.10	1	05/07/19 18:15

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S11 Lab ID: 7087818011 Collected: 04/30/19 12:15 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides Analytical Method: EPA 8081B Preparation Method: EPA 3546								
Aldrin	12.9	ug/kg	2.3	1	05/02/19 14:38	05/08/19 06:36	309-00-2	M1
alpha-BHC	18.0	ug/kg	2.3	1	05/02/19 14:38	05/08/19 06:36	319-84-6	M1,R1
beta-BHC	31.1	ug/kg	2.3	1	05/02/19 14:38	05/08/19 06:36	319-85-7	M1
delta-BHC	2.4	ug/kg	2.3	1	05/02/19 14:38	05/08/19 06:36	319-86-8	M1,R1
gamma-BHC (Lindane)	28.0	ug/kg	2.3	1	05/02/19 14:38	05/08/19 06:36	58-89-9	M1
Chlordane (Technical)	<44.5	ug/kg	44.5	1	05/02/19 14:38	05/08/19 06:36	57-74-9	
4,4'-DDD	38.4	ug/kg	4.5	1	05/02/19 14:38	05/08/19 06:36	72-54-8	CH,M1, R1
4,4'-DDE	183	ug/kg	22.3	5	05/02/19 14:38	05/09/19 01:31	72-55-9	
4,4'-DDT	200	ug/kg	22.3	5	05/02/19 14:38	05/09/19 01:31	50-29-3	R1
Dieldrin	<4.5	ug/kg	4.5	1	05/02/19 14:38	05/08/19 06:36	60-57-1	M1,R1
Endosulfan I	<2.3	ug/kg	2.3	1	05/02/19 14:38	05/08/19 06:36	959-98-8	M1
Endosulfan II	<4.5	ug/kg	4.5	1	05/02/19 14:38	05/08/19 06:36	33213-65-9	R1
Endosulfan sulfate	295	ug/kg	22.3	5	05/02/19 14:38	05/09/19 01:31	1031-07-8	
Endrin	38.8	ug/kg	4.5	1	05/02/19 14:38	05/08/19 06:36	72-20-8	M1
Heptachlor	7.8	ug/kg	2.3	1	05/02/19 14:38	05/08/19 06:36	76-44-8	CL,M1
Surrogates								
Tetrachloro-m-xylene (S)	48	%	30-150	1	05/02/19 14:38	05/08/19 06:36	877-09-8	
Decachlorobiphenyl (S)	116	%	30-150	1	05/02/19 14:38	05/08/19 06:36	2051-24-3	
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<44.5	ug/kg	44.5	1	05/02/19 13:48	05/08/19 18:44	12674-11-2	
PCB-1221 (Aroclor 1221)	<90.4	ug/kg	90.4	1	05/02/19 13:48	05/08/19 18:44	11104-28-2	
PCB-1232 (Aroclor 1232)	<44.5	ug/kg	44.5	1	05/02/19 13:48	05/08/19 18:44	11141-16-5	
PCB-1242 (Aroclor 1242)	<44.5	ug/kg	44.5	1	05/02/19 13:48	05/08/19 18:44	53469-21-9	
PCB-1248 (Aroclor 1248)	<44.5	ug/kg	44.5	1	05/02/19 13:48	05/08/19 18:44	12672-29-6	
PCB-1254 (Aroclor 1254)	433	ug/kg	44.5	1	05/02/19 13:48	05/08/19 18:44	11097-69-1	
PCB-1260 (Aroclor 1260)	<44.5	ug/kg	44.5	1	05/02/19 13:48	05/08/19 18:44	11096-82-5	
PCB, Total	433	ug/kg	90.4	1	05/02/19 13:48	05/08/19 18:44	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	62	%	30-150	1	05/02/19 13:48	05/08/19 18:44	877-09-8	
Decachlorobiphenyl (S)	107	%	30-150	1	05/02/19 13:48	05/08/19 18:44	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
2,4,5-TP (Silvex)	7.2	ug/kg	6.8	1	05/03/19 09:30	05/07/19 04:26	93-72-1	
Surrogates								
2,4-DCAA (S)	33	%	29-136	1	05/03/19 09:30	05/07/19 04:26	19719-28-9	
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	4390	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	83-32-9	
Anthracene	3770	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	120-12-7	
Benzo(a)anthracene	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	56-55-3	
Benzo(a)pyrene	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	50-32-8	
Benzo(b)fluoranthene	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	205-99-2	
Benzo(g,h,i)perylene	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	191-24-2	L1
Benzo(k)fluoranthene	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	207-08-9	

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S11 **Lab ID: 7087818011** Collected: 04/30/19 12:15 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Chrysene	2320	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	218-01-9	
Dibenz(a,h)anthracene	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	53-70-3	
Dibenzofuran	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	132-64-9	
Fluoranthene	4060	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	206-44-0	
Fluorene	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	86-73-7	
Indeno(1,2,3-cd)pyrene	<1790	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	193-39-5	
Phenanthrene	11800	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	85-01-8	
Pyrene	24700	ug/kg	1790	20	05/03/19 10:30	05/08/19 02:48	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	57	%	23-120	20	05/03/19 10:30	05/08/19 02:48	4165-60-0	
2-Fluorobiphenyl (S)	61	%	30-115	20	05/03/19 10:30	05/08/19 02:48	321-60-8	
p-Terphenyl-d14 (S)	112	%	18-137	20	05/03/19 10:30	05/08/19 02:48	1718-51-0	
Phenol-d5 (S)	55	%	24-113	20	05/03/19 10:30	05/08/19 02:48	4165-62-2	
2-Fluorophenol (S)	61	%	25-121	20	05/03/19 10:30	05/08/19 02:48	367-12-4	
2,4,6-Tribromophenol (S)	115	%	19-122	20	05/03/19 10:30	05/08/19 02:48	118-79-6	
2-Chlorophenol-d4 (S)	63	%	20-130	20	05/03/19 10:30	05/08/19 02:48	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	45	%	20-130	20	05/03/19 10:30	05/08/19 02:48	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	26.9	%	0.10	1		05/07/19 18:16

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S12 Lab ID: 7087818012 Collected: 04/30/19 12:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides Analytical Method: EPA 8081B Preparation Method: EPA 3546								
Aldrin	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 06:07	309-00-2	
alpha-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 06:07	319-84-6	
beta-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 06:07	319-85-7	
delta-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 06:07	319-86-8	
gamma-BHC (Lindane)	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 06:07	58-89-9	
Chlordane (Technical)	<35.9	ug/kg	35.9	1	05/02/19 14:38	05/08/19 06:07	57-74-9	
4,4'-DDD	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 06:07	72-54-8	
4,4'-DDE	13.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 06:07	72-55-9	
4,4'-DDT	9.0	ug/kg	3.6	1	05/02/19 14:38	05/08/19 06:07	50-29-3	CL
Dieldrin	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 06:07	60-57-1	
Endosulfan I	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 06:07	959-98-8	
Endosulfan II	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 06:07	33213-65-9	
Endosulfan sulfate	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 06:07	1031-07-8	
Endrin	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 06:07	72-20-8	
Heptachlor	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 06:07	76-44-8	CL
Surrogates								
Tetrachloro-m-xylene (S)	77	%	30-150	1	05/02/19 14:38	05/08/19 06:07	877-09-8	
Decachlorobiphenyl (S)	93	%	30-150	1	05/02/19 14:38	05/08/19 06:07	2051-24-3	
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 18:58	12674-11-2	
PCB-1221 (Aroclor 1221)	<72.8	ug/kg	72.8	1	05/02/19 13:48	05/08/19 18:58	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 18:58	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 18:58	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 18:58	12672-29-6	
PCB-1254 (Aroclor 1254)	337	ug/kg	35.9	1	05/02/19 13:48	05/08/19 18:58	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 18:58	11096-82-5	
PCB, Total	337	ug/kg	72.8	1	05/02/19 13:48	05/08/19 18:58	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	71	%	30-150	1	05/02/19 13:48	05/08/19 18:58	877-09-8	
Decachlorobiphenyl (S)	113	%	30-150	1	05/02/19 13:48	05/08/19 18:58	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
2,4,5-TP (Silvex)	<5.5	ug/kg	5.5	1	05/03/19 09:30	05/07/19 02:21	93-72-1	
Surrogates								
2,4-DCAA (S)	37	%	29-136	1	05/03/19 09:30	05/07/19 02:21	19719-28-9	
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	83-32-9	
Anthracene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	120-12-7	
Benzo(a)anthracene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	56-55-3	
Benzo(a)pyrene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	50-32-8	
Benzo(b)fluoranthene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	205-99-2	
Benzo(g,h,i)perylene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	191-24-2	L1
Benzo(k)fluoranthene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	207-08-9	
Chrysene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	218-01-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S12 **Lab ID: 7087818012** Collected: 04/30/19 12:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Dibenz(a,h)anthracene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	53-70-3	
Dibenzofuran	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	132-64-9	
Fluoranthene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	206-44-0	
Fluorene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	86-73-7	
Indeno(1,2,3-cd)pyrene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	193-39-5	
Phenanthrene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	85-01-8	
Pyrene	<73.2	ug/kg	73.2	1	05/03/19 10:30	05/08/19 18:26	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	60	%	23-120	1	05/03/19 10:30	05/08/19 18:26	4165-60-0	
2-Fluorobiphenyl (S)	58	%	30-115	1	05/03/19 10:30	05/08/19 18:26	321-60-8	
p-Terphenyl-d14 (S)	75	%	18-137	1	05/03/19 10:30	05/08/19 18:26	1718-51-0	
Phenol-d5 (S)	44	%	24-113	1	05/03/19 10:30	05/08/19 18:26	4165-62-2	
2-Fluorophenol (S)	50	%	25-121	1	05/03/19 10:30	05/08/19 18:26	367-12-4	
2,4,6-Tribromophenol (S)	65	%	19-122	1	05/03/19 10:30	05/08/19 18:26	118-79-6	
2-Chlorophenol-d4 (S)	56	%	20-130	1	05/03/19 10:30	05/08/19 18:26	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	40	%	20-130	1	05/03/19 10:30	05/08/19 18:26	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	9.3	%	0.10	1		05/07/19 18:17

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S13 Lab ID: 7087818013 Collected: 04/30/19 12:55 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides Analytical Method: EPA 8081B Preparation Method: EPA 3546								
4,4'-DDD	<3.8	ug/kg	3.8	1	05/02/19 14:38	05/08/19 06:22	72-54-8	
4,4'-DDE	<3.8	ug/kg	3.8	1	05/02/19 14:38	05/08/19 06:22	72-55-9	
4,4'-DDT	5.2	ug/kg	3.8	1	05/02/19 14:38	05/08/19 06:22	50-29-3	CL
Aldrin	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 06:22	309-00-2	
Chlordane (Technical)	<38.3	ug/kg	38.3	1	05/02/19 14:38	05/08/19 06:22	57-74-9	
Dieldrin	<3.8	ug/kg	3.8	1	05/02/19 14:38	05/08/19 06:22	60-57-1	
Endosulfan I	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 06:22	959-98-8	
Endosulfan II	<3.8	ug/kg	3.8	1	05/02/19 14:38	05/08/19 06:22	33213-65-9	
Endosulfan sulfate	<3.8	ug/kg	3.8	1	05/02/19 14:38	05/08/19 06:22	1031-07-8	
Endrin	<3.8	ug/kg	3.8	1	05/02/19 14:38	05/08/19 06:22	72-20-8	
Heptachlor	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 06:22	76-44-8	CL
alpha-BHC	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 06:22	319-84-6	
beta-BHC	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 06:22	319-85-7	
delta-BHC	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 06:22	319-86-8	
gamma-BHC (Lindane)	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 06:22	58-89-9	
Surrogates								
Tetrachloro-m-xylene (S)	80	%	30-150	1	05/02/19 14:38	05/08/19 06:22	877-09-8	
Decachlorobiphenyl (S)	81	%	30-150	1	05/02/19 14:38	05/08/19 06:22	2051-24-3	
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB, Total	168	ug/kg	77.8	1	05/02/19 13:48	05/08/19 19:11	1336-36-3	
PCB-1016 (Aroclor 1016)	<38.3	ug/kg	38.3	1	05/02/19 13:48	05/08/19 19:11	12674-11-2	
PCB-1221 (Aroclor 1221)	<77.8	ug/kg	77.8	1	05/02/19 13:48	05/08/19 19:11	11104-28-2	
PCB-1232 (Aroclor 1232)	<38.3	ug/kg	38.3	1	05/02/19 13:48	05/08/19 19:11	11141-16-5	
PCB-1242 (Aroclor 1242)	<38.3	ug/kg	38.3	1	05/02/19 13:48	05/08/19 19:11	53469-21-9	
PCB-1248 (Aroclor 1248)	<38.3	ug/kg	38.3	1	05/02/19 13:48	05/08/19 19:11	12672-29-6	
PCB-1254 (Aroclor 1254)	168	ug/kg	38.3	1	05/02/19 13:48	05/08/19 19:11	11097-69-1	
PCB-1260 (Aroclor 1260)	<38.3	ug/kg	38.3	1	05/02/19 13:48	05/08/19 19:11	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	58	%	30-150	1	05/02/19 13:48	05/08/19 19:11	877-09-8	
Decachlorobiphenyl (S)	91	%	30-150	1	05/02/19 13:48	05/08/19 19:11	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
2,4,5-TP (Silvex)	<5.8	ug/kg	5.8	1	05/03/19 09:30	05/07/19 02:42	93-72-1	
Surrogates								
2,4-DCAA (S)	60	%	29-136	1	05/03/19 09:30	05/07/19 02:42	19719-28-9	
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	83-32-9	
Anthracene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	120-12-7	
Benzo(a)anthracene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	56-55-3	
Benzo(a)pyrene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	50-32-8	
Benzo(b)fluoranthene	91.6	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	205-99-2	
Benzo(g,h,i)perylene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	191-24-2	L1
Benzo(k)fluoranthene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	207-08-9	
Chrysene	88.8	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	218-01-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S13 **Lab ID: 7087818013** Collected: 04/30/19 12:55 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Dibenz(a,h)anthracene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	53-70-3	
Dibenzofuran	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	132-64-9	
Fluoranthene	141	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	206-44-0	
Fluorene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	86-73-7	
Indeno(1,2,3-cd)pyrene	<77.3	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	193-39-5	
Phenanthrene	96.2	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	85-01-8	
Pyrene	136	ug/kg	77.3	1	05/03/19 10:30	05/08/19 17:59	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	73	%	23-120	1	05/03/19 10:30	05/08/19 17:59	4165-60-0	
2-Fluorobiphenyl (S)	68	%	30-115	1	05/03/19 10:30	05/08/19 17:59	321-60-8	
p-Terphenyl-d14 (S)	74	%	18-137	1	05/03/19 10:30	05/08/19 17:59	1718-51-0	
Phenol-d5 (S)	30	%	24-113	1	05/03/19 10:30	05/08/19 17:59	4165-62-2	
2-Fluorophenol (S)	42	%	25-121	1	05/03/19 10:30	05/08/19 17:59	367-12-4	
2,4,6-Tribromophenol (S)	74	%	19-122	1	05/03/19 10:30	05/08/19 17:59	118-79-6	
2-Chlorophenol-d4 (S)	62	%	20-130	1	05/03/19 10:30	05/08/19 17:59	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	47	%	20-130	1	05/03/19 10:30	05/08/19 17:59	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	15.0	%	0.10	1		05/07/19 18:18		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S14 **Lab ID: 7087818014** Collected: 04/30/19 13:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides Analytical Method: EPA 8081B Preparation Method: EPA 3546								
Aldrin	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:39	309-00-2	
alpha-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:39	319-84-6	
beta-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:39	319-85-7	
delta-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:39	319-86-8	
gamma-BHC (Lindane)	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:39	58-89-9	
Chlordane (Technical)	<35.9	ug/kg	35.9	1	05/02/19 14:38	05/08/19 04:39	57-74-9	
4,4'-DDD	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 04:39	72-54-8	
4,4'-DDE	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 04:39	72-55-9	
4,4'-DDT	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 04:39	50-29-3	
Dieldrin	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 04:39	60-57-1	
Endosulfan I	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:39	959-98-8	
Endosulfan II	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 04:39	33213-65-9	
Endosulfan sulfate	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 04:39	1031-07-8	
Endrin	<3.6	ug/kg	3.6	1	05/02/19 14:38	05/08/19 04:39	72-20-8	
Heptachlor	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:39	76-44-8	
Surrogates								
Tetrachloro-m-xylene (S)	77	%	30-150	1	05/02/19 14:38	05/08/19 04:39	877-09-8	
Decachlorobiphenyl (S)	83	%	30-150	1	05/02/19 14:38	05/08/19 04:39	2051-24-3	
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 19:25	12674-11-2	
PCB-1221 (Aroclor 1221)	<72.9	ug/kg	72.9	1	05/02/19 13:48	05/08/19 19:25	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 19:25	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 19:25	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 19:25	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 19:25	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.9	ug/kg	35.9	1	05/02/19 13:48	05/08/19 19:25	11096-82-5	
PCB, Total	<72.9	ug/kg	72.9	1	05/02/19 13:48	05/08/19 19:25	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	83	%	30-150	1	05/02/19 13:48	05/08/19 19:25	877-09-8	
Decachlorobiphenyl (S)	102	%	30-150	1	05/02/19 13:48	05/08/19 19:25	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
2,4,5-TP (Silvex)	<5.6	ug/kg	5.6	1	05/03/19 09:30	05/07/19 00:58	93-72-1	
Surrogates								
2,4-DCAA (S)	71	%	29-136	1	05/03/19 09:30	05/07/19 00:58	19719-28-9	
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	92.5	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	83-32-9	
Anthracene	145	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	120-12-7	
Benzo(a)anthracene	398	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	56-55-3	
Benzo(a)pyrene	304	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	50-32-8	
Benzo(b)fluoranthene	368	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	205-99-2	
Benzo(g,h,i)perylene	233	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	191-24-2	CH,L1
Benzo(k)fluoranthene	157	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	207-08-9	
Chrysene	388	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	218-01-9	

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S14 **Lab ID: 7087818014** Collected: 04/30/19 13:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Dibenz(a,h)anthracene	<74.4	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	53-70-3	
Dibenzofuran	<74.4	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	132-64-9	
Fluoranthene	743	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	206-44-0	
Fluorene	87.0	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	86-73-7	
Indeno(1,2,3-cd)pyrene	233	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	193-39-5	
Phenanthrene	799	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	85-01-8	
Pyrene	706	ug/kg	74.4	1	05/03/19 10:30	05/08/19 17:32	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	63	%	23-120	1	05/03/19 10:30	05/08/19 17:32	4165-60-0	
2-Fluorobiphenyl (S)	66	%	30-115	1	05/03/19 10:30	05/08/19 17:32	321-60-8	
p-Terphenyl-d14 (S)	84	%	18-137	1	05/03/19 10:30	05/08/19 17:32	1718-51-0	
Phenol-d5 (S)	45	%	24-113	1	05/03/19 10:30	05/08/19 17:32	4165-62-2	
2-Fluorophenol (S)	50	%	25-121	1	05/03/19 10:30	05/08/19 17:32	367-12-4	
2,4,6-Tribromophenol (S)	74	%	19-122	1	05/03/19 10:30	05/08/19 17:32	118-79-6	
2-Chlorophenol-d4 (S)	60	%	20-130	1	05/03/19 10:30	05/08/19 17:32	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	37	%	20-130	1	05/03/19 10:30	05/08/19 17:32	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	10.5	%	0.10	1		05/07/19 18:19		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S15 **Lab ID: 7087818015** Collected: 05/01/19 09:35 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	83-32-9	
Anthracene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	120-12-7	
Benzo(a)anthracene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	56-55-3	
Benzo(a)pyrene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	50-32-8	
Benzo(b)fluoranthene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	205-99-2	
Benzo(g,h,i)perylene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	191-24-2	L1
Benzo(k)fluoranthene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	207-08-9	
Chrysene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	218-01-9	
Dibenz(a,h)anthracene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	53-70-3	
Dibenzofuran	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	132-64-9	
Fluoranthene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	206-44-0	
Fluorene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	86-73-7	
Indeno(1,2,3-cd)pyrene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	193-39-5	
Phenanthrene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	85-01-8	
Pyrene	<82.9	ug/kg	82.9	1	05/03/19 10:30	05/08/19 17:04	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	36	%	23-120	1	05/03/19 10:30	05/08/19 17:04	4165-60-0	
2-Fluorobiphenyl (S)	32	%	30-115	1	05/03/19 10:30	05/08/19 17:04	321-60-8	
p-Terphenyl-d14 (S)	58	%	18-137	1	05/03/19 10:30	05/08/19 17:04	1718-51-0	
Phenol-d5 (S)	40	%	24-113	1	05/03/19 10:30	05/08/19 17:04	4165-62-2	
2-Fluorophenol (S)	39	%	25-121	1	05/03/19 10:30	05/08/19 17:04	367-12-4	
2,4,6-Tribromophenol (S)	47	%	19-122	1	05/03/19 10:30	05/08/19 17:04	118-79-6	
2-Chlorophenol-d4 (S)	37	%	20-130	1	05/03/19 10:30	05/08/19 17:04	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	22	%	20-130	1	05/03/19 10:30	05/08/19 17:04	2199-69-1	

Percent Moisture Analytical Method: ASTM D2216-92M

Percent Moisture	21.7	%	0.10	1		05/07/19 18:21

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S16 **Lab ID: 7087818016** Collected: 05/01/19 10:05 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	12674-11-2	
PCB-1221 (Aroclor 1221)	<84100	ug/kg	84100	1000	05/02/19 13:48	05/08/19 20:59	11104-28-2	
PCB-1232 (Aroclor 1232)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11141-16-5	
PCB-1242 (Aroclor 1242)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	53469-21-9	
PCB-1248 (Aroclor 1248)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	12672-29-6	
PCB-1254 (Aroclor 1254)	449000	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11097-69-1	
PCB-1260 (Aroclor 1260)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11096-82-5	
PCB, Total	449000	ug/kg	84100	1000	05/02/19 13:48	05/08/19 20:59	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 20:59	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 20:59	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	6120	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	83-32-9	
Anthracene	10200	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	120-12-7	
Benzo(a)anthracene	25100	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	56-55-3	
Benzo(a)pyrene	19800	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	50-32-8	
Benzo(b)fluoranthene	31700	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	205-99-2	
Benzo(g,h,i)perylene	6730	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	191-24-2	CH,L1
Benzo(k)fluoranthene	14900	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	207-08-9	
Chrysene	26800	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	218-01-9	
Dibenz(a,h)anthracene	2670	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	53-70-3	
Dibenzofuran	<1680	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	132-64-9	
Fluoranthene	55100	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	206-44-0	
Fluorene	5760	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	86-73-7	
Indeno(1,2,3-cd)pyrene	7770	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	193-39-5	
Phenanthrene	59700	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	85-01-8	
Pyrene	60600	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	47	%	23-120	20	05/03/19 10:30	05/09/19 00:53	4165-60-0	
2-Fluorobiphenyl (S)	63	%	30-115	20	05/03/19 10:30	05/09/19 00:53	321-60-8	
p-Terphenyl-d14 (S)	77	%	18-137	20	05/03/19 10:30	05/09/19 00:53	1718-51-0	
Phenol-d5 (S)	49	%	24-113	20	05/03/19 10:30	05/09/19 00:53	4165-62-2	
2-Fluorophenol (S)	60	%	25-121	20	05/03/19 10:30	05/09/19 00:53	367-12-4	
2,4,6-Tribromophenol (S)	60	%	19-122	20	05/03/19 10:30	05/09/19 00:53	118-79-6	
2-Chlorophenol-d4 (S)	57	%	20-130	20	05/03/19 10:30	05/09/19 00:53	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	41	%	20-130	20	05/03/19 10:30	05/09/19 00:53	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	21.5	%	0.10	1		05/08/19 17:15	

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S17 **Lab ID: 7087818017** Collected: 05/01/19 10:40 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	12674-11-2	
PCB-1221 (Aroclor 1221)	<2440000	ug/kg	2440000	25000	05/02/19 13:48	05/10/19 02:53	11104-28-2	
PCB-1232 (Aroclor 1232)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	11141-16-5	
PCB-1242 (Aroclor 1242)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	53469-21-9	
PCB-1248 (Aroclor 1248)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	12672-29-6	
PCB-1254 (Aroclor 1254)	9560000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	11097-69-1	
PCB-1260 (Aroclor 1260)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	11096-82-5	
PCB, Total	9560000	ug/kg	2440000	25000	05/02/19 13:48	05/10/19 02:53	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 21:13	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 21:13	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<974	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	83-32-9	
Anthracene	1200	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	120-12-7	
Benzo(a)anthracene	4340	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	56-55-3	
Benzo(a)pyrene	3480	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	50-32-8	
Benzo(b)fluoranthene	6540	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	205-99-2	
Benzo(g,h,i)perylene	1340	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	191-24-2	L1
Benzo(k)fluoranthene	2530	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	207-08-9	
Chrysene	5050	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	218-01-9	
Dibenz(a,h)anthracene	<974	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	53-70-3	
Dibenzofuran	<974	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	132-64-9	
Fluoranthene	8900	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	206-44-0	
Fluorene	<974	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	86-73-7	
Indeno(1,2,3-cd)pyrene	1280	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	193-39-5	
Phenanthrene	7460	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	85-01-8	
Pyrene	10400	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	15	%	23-120	10	05/03/19 10:30	05/08/19 23:30	4165-60-0	S4
2-Fluorobiphenyl (S)	15	%	30-115	10	05/03/19 10:30	05/08/19 23:30	321-60-8	S4
p-Terphenyl-d14 (S)	33	%	18-137	10	05/03/19 10:30	05/08/19 23:30	1718-51-0	
Phenol-d5 (S)	17	%	24-113	10	05/03/19 10:30	05/08/19 23:30	4165-62-2	S4
2-Fluorophenol (S)	19	%	25-121	10	05/03/19 10:30	05/08/19 23:30	367-12-4	S4
2,4,6-Tribromophenol (S)	15	%	19-122	10	05/03/19 10:30	05/08/19 23:30	118-79-6	S4
2-Chlorophenol-d4 (S)	16	%	20-130	10	05/03/19 10:30	05/08/19 23:30	93951-73-6	S4
1,2-Dichlorobenzene-d4 (S)	11	%	20-130	10	05/03/19 10:30	05/08/19 23:30	2199-69-1	S4

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	31.8	%	0.10	1		05/08/19 17:17		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S18 **Lab ID: 7087818018** Collected: 05/01/19 12:00 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	12674-11-2	
PCB-1221 (Aroclor 1221)	<6990	ug/kg	6990	100	05/02/19 13:48	05/10/19 02:39	11104-28-2	
PCB-1232 (Aroclor 1232)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	11141-16-5	
PCB-1242 (Aroclor 1242)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	53469-21-9	
PCB-1248 (Aroclor 1248)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	12672-29-6	
PCB-1254 (Aroclor 1254)	7110	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	11097-69-1	
PCB-1260 (Aroclor 1260)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	11096-82-5	
PCB, Total	7110	ug/kg	6990	100	05/02/19 13:48	05/10/19 02:39	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	100	05/02/19 13:48	05/10/19 02:39	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	100	05/02/19 13:48	05/10/19 02:39	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	83-32-9	
Anthracene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	120-12-7	
Benzo(a)anthracene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	56-55-3	
Benzo(a)pyrene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	50-32-8	
Benzo(b)fluoranthene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	205-99-2	
Benzo(g,h,i)perylene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	191-24-2	L1
Benzo(k)fluoranthene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	207-08-9	
Chrysene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	218-01-9	
Dibenz(a,h)anthracene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	53-70-3	
Dibenzofuran	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	132-64-9	
Fluoranthene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	206-44-0	
Fluorene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	193-39-5	
Phenanthrene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	85-01-8	
Pyrene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	60	%	23-120	1	05/03/19 10:30	05/08/19 23:03	4165-60-0	
2-Fluorobiphenyl (S)	60	%	30-115	1	05/03/19 10:30	05/08/19 23:03	321-60-8	
p-Terphenyl-d14 (S)	90	%	18-137	1	05/03/19 10:30	05/08/19 23:03	1718-51-0	
Phenol-d5 (S)	61	%	24-113	1	05/03/19 10:30	05/08/19 23:03	4165-62-2	
2-Fluorophenol (S)	59	%	25-121	1	05/03/19 10:30	05/08/19 23:03	367-12-4	
2,4,6-Tribromophenol (S)	63	%	19-122	1	05/03/19 10:30	05/08/19 23:03	118-79-6	
2-Chlorophenol-d4 (S)	57	%	20-130	1	05/03/19 10:30	05/08/19 23:03	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	39	%	20-130	1	05/03/19 10:30	05/08/19 23:03	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	6.2	%	0.10	1		05/08/19 17:18		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S19 Lab ID: 7087818019 Collected: 05/01/19 12:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:05	12674-11-2	
PCB-1221 (Aroclor 1221)	<3510	ug/kg	3510	50	05/02/19 13:48	05/08/19 20:05	11104-28-2	
PCB-1232 (Aroclor 1232)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:05	11141-16-5	
PCB-1242 (Aroclor 1242)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:05	53469-21-9	
PCB-1248 (Aroclor 1248)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:05	12672-29-6	
PCB-1254 (Aroclor 1254)	10900	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:05	11097-69-1	
PCB-1260 (Aroclor 1260)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:05	11096-82-5	
PCB, Total	10900	ug/kg	3510	50	05/02/19 13:48	05/08/19 20:05	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	50	05/02/19 13:48	05/08/19 20:05	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	50	05/02/19 13:48	05/08/19 20:05	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	83-32-9	
Anthracene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	120-12-7	
Benzo(a)anthracene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	56-55-3	
Benzo(a)pyrene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	50-32-8	
Benzo(b)fluoranthene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	205-99-2	
Benzo(g,h,i)perylene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	191-24-2	L1
Benzo(k)fluoranthene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	207-08-9	
Chrysene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	218-01-9	
Dibenz(a,h)anthracene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	53-70-3	
Dibenzofuran	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	132-64-9	
Fluoranthene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	206-44-0	
Fluorene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	86-73-7	
Indeno(1,2,3-cd)pyrene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	193-39-5	
Phenanthrene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	85-01-8	
Pyrene	<71.8	ug/kg	71.8	1	05/03/19 10:30	05/08/19 16:09	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	43	%	23-120	1	05/03/19 10:30	05/08/19 16:09	4165-60-0	
2-Fluorobiphenyl (S)	42	%	30-115	1	05/03/19 10:30	05/08/19 16:09	321-60-8	
p-Terphenyl-d14 (S)	57	%	18-137	1	05/03/19 10:30	05/08/19 16:09	1718-51-0	
Phenol-d5 (S)	40	%	24-113	1	05/03/19 10:30	05/08/19 16:09	4165-62-2	
2-Fluorophenol (S)	40	%	25-121	1	05/03/19 10:30	05/08/19 16:09	367-12-4	
2,4,6-Tribromophenol (S)	45	%	19-122	1	05/03/19 10:30	05/08/19 16:09	118-79-6	
2-Chlorophenol-d4 (S)	39	%	20-130	1	05/03/19 10:30	05/08/19 16:09	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	28	%	20-130	1	05/03/19 10:30	05/08/19 16:09	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	6.7	%	0.10	1		05/08/19 17:19		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S20 **Lab ID: 7087818020** Collected: 05/01/19 12:00 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:19	12674-11-2	
PCB-1221 (Aroclor 1221)	<3520	ug/kg	3520	50	05/02/19 13:48	05/08/19 20:19	11104-28-2	
PCB-1232 (Aroclor 1232)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:19	11141-16-5	
PCB-1242 (Aroclor 1242)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:19	53469-21-9	
PCB-1248 (Aroclor 1248)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:19	12672-29-6	
PCB-1254 (Aroclor 1254)	10500	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:19	11097-69-1	
PCB-1260 (Aroclor 1260)	<1730	ug/kg	1730	50	05/02/19 13:48	05/08/19 20:19	11096-82-5	
PCB, Total	10500	ug/kg	3520	50	05/02/19 13:48	05/08/19 20:19	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	50	05/02/19 13:48	05/08/19 20:19	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	50	05/02/19 13:48	05/08/19 20:19	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	83-32-9	
Anthracene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	120-12-7	
Benzo(a)anthracene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	56-55-3	
Benzo(a)pyrene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	50-32-8	
Benzo(b)fluoranthene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	205-99-2	
Benzo(g,h,i)perylene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	191-24-2	L1
Benzo(k)fluoranthene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	207-08-9	
Chrysene	103	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	218-01-9	
Dibenz(a,h)anthracene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	53-70-3	
Dibenzofuran	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	132-64-9	
Fluoranthene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	206-44-0	
Fluorene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	86-73-7	
Indeno(1,2,3-cd)pyrene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	193-39-5	
Phenanthrene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	85-01-8	
Pyrene	<71.5	ug/kg	71.5	1	05/03/19 10:30	05/08/19 16:37	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	58	%	23-120	1	05/03/19 10:30	05/08/19 16:37	4165-60-0	
2-Fluorobiphenyl (S)	61	%	30-115	1	05/03/19 10:30	05/08/19 16:37	321-60-8	
p-Terphenyl-d14 (S)	78	%	18-137	1	05/03/19 10:30	05/08/19 16:37	1718-51-0	
Phenol-d5 (S)	59	%	24-113	1	05/03/19 10:30	05/08/19 16:37	4165-62-2	
2-Fluorophenol (S)	55	%	25-121	1	05/03/19 10:30	05/08/19 16:37	367-12-4	
2,4,6-Tribromophenol (S)	54	%	19-122	1	05/03/19 10:30	05/08/19 16:37	118-79-6	
2-Chlorophenol-d4 (S)	57	%	20-130	1	05/03/19 10:30	05/08/19 16:37	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	32	%	20-130	1	05/03/19 10:30	05/08/19 16:37	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	6.2	%	0.10	1		05/08/19 17:20		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S21 Lab ID: 7087818021 Collected: 05/01/19 12:45 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<699	ug/kg	699	20	05/02/19 13:48	05/08/19 20:32	12674-11-2	
PCB-1221 (Aroclor 1221)	<1420	ug/kg	1420	20	05/02/19 13:48	05/08/19 20:32	11104-28-2	
PCB-1232 (Aroclor 1232)	<699	ug/kg	699	20	05/02/19 13:48	05/08/19 20:32	11141-16-5	
PCB-1242 (Aroclor 1242)	<699	ug/kg	699	20	05/02/19 13:48	05/08/19 20:32	53469-21-9	
PCB-1248 (Aroclor 1248)	<699	ug/kg	699	20	05/02/19 13:48	05/08/19 20:32	12672-29-6	
PCB-1254 (Aroclor 1254)	5640	ug/kg	699	20	05/02/19 13:48	05/08/19 20:32	11097-69-1	
PCB-1260 (Aroclor 1260)	<699	ug/kg	699	20	05/02/19 13:48	05/08/19 20:32	11096-82-5	
PCB, Total	5640	ug/kg	1420	20	05/02/19 13:48	05/08/19 20:32	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	0	%	30-150	20	05/02/19 13:48	05/08/19 20:32	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	20	05/02/19 13:48	05/08/19 20:32	2051-24-3	S4
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	83-32-9	
Anthracene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	120-12-7	
Benzo(a)anthracene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	56-55-3	
Benzo(a)pyrene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	50-32-8	
Benzo(b)fluoranthene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	205-99-2	
Benzo(g,h,i)perylene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	191-24-2	
Benzo(k)fluoranthene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	207-08-9	
Chrysene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	218-01-9	
Dibenz(a,h)anthracene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	53-70-3	
Dibenzofuran	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	132-64-9	
Fluoranthene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	206-44-0	
Fluorene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	86-73-7	
Indeno(1,2,3-cd)pyrene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	193-39-5	
Phenanthrene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	85-01-8	
Pyrene	<710	ug/kg	710	10	05/07/19 16:49	05/10/19 17:21	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	84	%	23-120	10	05/07/19 16:49	05/10/19 17:21	4165-60-0	
2-Fluorobiphenyl (S)	92	%	30-115	10	05/07/19 16:49	05/10/19 17:21	321-60-8	
p-Terphenyl-d14 (S)	103	%	18-137	10	05/07/19 16:49	05/10/19 17:21	1718-51-0	
Phenol-d5 (S)	100	%	24-113	10	05/07/19 16:49	05/10/19 17:21	4165-62-2	
2-Fluorophenol (S)	92	%	25-121	10	05/07/19 16:49	05/10/19 17:21	367-12-4	
2,4,6-Tribromophenol (S)	82	%	19-122	10	05/07/19 16:49	05/10/19 17:21	118-79-6	
2-Chlorophenol-d4 (S)	89	%	20-130	10	05/07/19 16:49	05/10/19 17:21	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	66	%	20-130	10	05/07/19 16:49	05/10/19 17:21	2199-69-1	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	7.4	%	0.10	1		05/08/19 17:21		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S22 Lab ID: 7087818022 Collected: 05/01/19 12:50 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	12674-11-2	
PCB-1221 (Aroclor 1221)	<1770	ug/kg	1770	10	05/02/19 13:48	05/08/19 20:46	11104-28-2	
PCB-1232 (Aroclor 1232)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	11141-16-5	
PCB-1242 (Aroclor 1242)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	53469-21-9	
PCB-1248 (Aroclor 1248)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	12672-29-6	
PCB-1254 (Aroclor 1254)	6070	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	11097-69-1	
PCB-1260 (Aroclor 1260)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	11096-82-5	
PCB, Total	6070	ug/kg	1770	10	05/02/19 13:48	05/08/19 20:46	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	10	05/02/19 13:48	05/08/19 20:46	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	10	05/02/19 13:48	05/08/19 20:46	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	83-32-9	
Anthracene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	120-12-7	
Benzo(a)anthracene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	56-55-3	
Benzo(a)pyrene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	50-32-8	
Benzo(b)fluoranthene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	205-99-2	
Benzo(g,h,i)perylene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	191-24-2	
Benzo(k)fluoranthene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	207-08-9	
Chrysene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	218-01-9	
Dibenz(a,h)anthracene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	53-70-3	
Dibenzofuran	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	132-64-9	
Fluoranthene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	206-44-0	
Fluorene	679	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	86-73-7	
Indeno(1,2,3-cd)pyrene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	193-39-5	
Phenanthrene	421	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	85-01-8	
Pyrene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	145	%	23-120	1	05/13/19 16:05	05/15/19 12:27	4165-60-0	S0
2-Fluorobiphenyl (S)	77	%	30-115	1	05/13/19 16:05	05/15/19 12:27	321-60-8	
p-Terphenyl-d14 (S)	98	%	18-137	1	05/13/19 16:05	05/15/19 12:27	1718-51-0	
Phenol-d5 (S)	80	%	24-113	1	05/13/19 16:05	05/15/19 12:27	4165-62-2	
2-Fluorophenol (S)	72	%	25-121	1	05/13/19 16:05	05/15/19 12:27	367-12-4	
2,4,6-Tribromophenol (S)	91	%	19-122	1	05/13/19 16:05	05/15/19 12:27	118-79-6	
2-Chlorophenol-d4 (S)	71	%	20-130	1	05/13/19 16:05	05/15/19 12:27	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	65	%	20-130	1	05/13/19 16:05	05/15/19 12:27	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	63.2	%	0.10	1	05/08/19 17:22			

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S23 **Lab ID: 7087818023** Collected: 05/01/19 13:15 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides Analytical Method: EPA 8081B Preparation Method: EPA 3546								
Aldrin	<1.9	ug/kg	1.9	1	05/02/19 14:38	05/08/19 04:53	309-00-2	
alpha-BHC	<1.9	ug/kg	1.9	1	05/02/19 14:38	05/08/19 04:53	319-84-6	
beta-BHC	<1.9	ug/kg	1.9	1	05/02/19 14:38	05/08/19 04:53	319-85-7	
delta-BHC	<1.9	ug/kg	1.9	1	05/02/19 14:38	05/08/19 04:53	319-86-8	
gamma-BHC (Lindane)	<1.9	ug/kg	1.9	1	05/02/19 14:38	05/08/19 04:53	58-89-9	
Chlordane (Technical)	<36.7	ug/kg	36.7	1	05/02/19 14:38	05/08/19 04:53	57-74-9	
4,4'-DDD	<3.7	ug/kg	3.7	1	05/02/19 14:38	05/08/19 04:53	72-54-8	
4,4'-DDE	<3.7	ug/kg	3.7	1	05/02/19 14:38	05/08/19 04:53	72-55-9	
4,4'-DDT	<3.7	ug/kg	3.7	1	05/02/19 14:38	05/08/19 04:53	50-29-3	
Dieldrin	19.3	ug/kg	3.7	1	05/02/19 14:38	05/08/19 04:53	60-57-1	
Endosulfan I	<1.9	ug/kg	1.9	1	05/02/19 14:38	05/08/19 04:53	959-98-8	
Endosulfan II	20.7	ug/kg	3.7	1	05/02/19 14:38	05/08/19 04:53	33213-65-9	
Endosulfan sulfate	<3.7	ug/kg	3.7	1	05/02/19 14:38	05/08/19 04:53	1031-07-8	
Endrin	17.4	ug/kg	3.7	1	05/02/19 14:38	05/08/19 04:53	72-20-8	
Heptachlor	<1.9	ug/kg	1.9	1	05/02/19 14:38	05/08/19 04:53	76-44-8	
Surrogates								
Tetrachloro-m-xylene (S)	71	%	30-150	1	05/02/19 14:38	05/08/19 04:53	877-09-8	
Decachlorobiphenyl (S)	68	%	30-150	1	05/02/19 14:38	05/08/19 04:53	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
2,4,5-TP (Silvex)	<5.7	ug/kg	5.7	1	05/03/19 09:30	05/07/19 01:18	93-72-1	
Surrogates								
2,4-DCAA (S)	67	%	29-136	1	05/03/19 09:30	05/07/19 01:18	19719-28-9	
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	83-32-9	
Anthracene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	120-12-7	
Benzo(a)anthracene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	56-55-3	
Benzo(a)pyrene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	50-32-8	
Benzo(b)fluoranthene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	205-99-2	
Benzo(g,h,i)perylene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	191-24-2	
Benzo(k)fluoranthene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	207-08-9	
Chrysene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	218-01-9	
Dibenz(a,h)anthracene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	53-70-3	
Dibenzofuran	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	132-64-9	
Fluoranthene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	206-44-0	
Fluorene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	86-73-7	
Indeno(1,2,3-cd)pyrene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	193-39-5	
Phenanthrene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	85-01-8	
Pyrene	<383	ug/kg	383	5	05/13/19 16:05	05/15/19 12:55	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	69	%	23-120	5	05/13/19 16:05	05/15/19 12:55	4165-60-0	
2-Fluorobiphenyl (S)	75	%	30-115	5	05/13/19 16:05	05/15/19 12:55	321-60-8	
p-Terphenyl-d14 (S)	91	%	18-137	5	05/13/19 16:05	05/15/19 12:55	1718-51-0	
Phenol-d5 (S)	70	%	24-113	5	05/13/19 16:05	05/15/19 12:55	4165-62-2	
2-Fluorophenol (S)	70	%	25-121	5	05/13/19 16:05	05/15/19 12:55	367-12-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S23 **Lab ID: 7087818023** Collected: 05/01/19 13:15 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Surrogates								
2,4,6-Tribromophenol (S)	79	%	19-122	5	05/13/19 16:05	05/15/19 12:55	118-79-6	
2-Chlorophenol-d4 (S)	71	%	20-130	5	05/13/19 16:05	05/15/19 12:55	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	57	%	20-130	5	05/13/19 16:05	05/15/19 12:55	2199-69-1	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	12.5	%	0.10	1		05/08/19 17:23		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S24 **Lab ID: 7087818024** Collected: 05/01/19 13:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides Analytical Method: EPA 8081B Preparation Method: EPA 3546								
Aldrin	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 04:09	309-00-2	
alpha-BHC	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 04:09	319-84-6	
beta-BHC	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 04:09	319-85-7	
delta-BHC	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 04:09	319-86-8	
gamma-BHC (Lindane)	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 04:09	58-89-9	
Chlordane (Technical)	<39.3	ug/kg	39.3	1	05/02/19 14:38	05/08/19 04:09	57-74-9	
4,4'-DDD	<3.9	ug/kg	3.9	1	05/02/19 14:38	05/08/19 04:09	72-54-8	
4,4'-DDE	<3.9	ug/kg	3.9	1	05/02/19 14:38	05/08/19 04:09	72-55-9	
4,4'-DDT	5.3	ug/kg	3.9	1	05/02/19 14:38	05/08/19 04:09	50-29-3	
Dieldrin	<3.9	ug/kg	3.9	1	05/02/19 14:38	05/08/19 04:09	60-57-1	
Endosulfan I	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 04:09	959-98-8	
Endosulfan II	<3.9	ug/kg	3.9	1	05/02/19 14:38	05/08/19 04:09	33213-65-9	
Endosulfan sulfate	<3.9	ug/kg	3.9	1	05/02/19 14:38	05/08/19 04:09	1031-07-8	
Endrin	<3.9	ug/kg	3.9	1	05/02/19 14:38	05/08/19 04:09	72-20-8	
Heptachlor	<2.0	ug/kg	2.0	1	05/02/19 14:38	05/08/19 04:09	76-44-8	
Surrogates								
Tetrachloro-m-xylene (S)	52	%	30-150	1	05/02/19 14:38	05/08/19 04:09	877-09-8	
Decachlorobiphenyl (S)	51	%	30-150	1	05/02/19 14:38	05/08/19 04:09	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
2,4,5-TP (Silvex)	<6.0	ug/kg	6.0	1	05/03/19 09:30	05/07/19 01:39	93-72-1	
Surrogates								
2,4-DCAA (S)	43	%	29-136	1	05/03/19 09:30	05/07/19 01:39	19719-28-9	
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	83-32-9	
Anthracene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	120-12-7	
Benzo(a)anthracene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	56-55-3	
Benzo(a)pyrene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	50-32-8	
Benzo(b)fluoranthene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	205-99-2	
Benzo(g,h,i)perylene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	191-24-2	
Benzo(k)fluoranthene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	207-08-9	
Chrysene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	218-01-9	
Dibenz(a,h)anthracene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	53-70-3	
Dibenzofuran	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	132-64-9	
Fluoranthene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	206-44-0	
Fluorene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	86-73-7	
Indeno(1,2,3-cd)pyrene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	193-39-5	
Phenanthrene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	85-01-8	
Pyrene	<78.8	ug/kg	78.8	1	05/07/19 16:49	05/10/19 18:19	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	46	%	23-120	1	05/07/19 16:49	05/10/19 18:19	4165-60-0	
2-Fluorobiphenyl (S)	46	%	30-115	1	05/07/19 16:49	05/10/19 18:19	321-60-8	
p-Terphenyl-d14 (S)	52	%	18-137	1	05/07/19 16:49	05/10/19 18:19	1718-51-0	
Phenol-d5 (S)	4	%	24-113	1	05/07/19 16:49	05/10/19 18:19	4165-62-2	S5
2-Fluorophenol (S)	15	%	25-121	1	05/07/19 16:49	05/10/19 18:19	367-12-4	S5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S24 **Lab ID: 7087818024** Collected: 05/01/19 13:30 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Surrogates								
2,4,6-Tribromophenol (S)	43	%	19-122	1	05/07/19 16:49	05/10/19 18:19	118-79-6	
2-Chlorophenol-d4 (S)	38	%	20-130	1	05/07/19 16:49	05/10/19 18:19	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	37	%	20-130	1	05/07/19 16:49	05/10/19 18:19	2199-69-1	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	16.6	%	0.10	1		05/08/19 17:23		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S25 **Lab ID: 7087818025** Collected: 05/01/19 13:50 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides Analytical Method: EPA 8081B Preparation Method: EPA 3546								
Aldrin	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:24	309-00-2	
alpha-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:24	319-84-6	
beta-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:24	319-85-7	
delta-BHC	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:24	319-86-8	
gamma-BHC (Lindane)	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:24	58-89-9	
Chlordane (Technical)	<35.2	ug/kg	35.2	1	05/02/19 14:38	05/08/19 04:24	57-74-9	
4,4'-DDD	<3.5	ug/kg	3.5	1	05/02/19 14:38	05/08/19 04:24	72-54-8	
4,4'-DDE	<3.5	ug/kg	3.5	1	05/02/19 14:38	05/08/19 04:24	72-55-9	
4,4'-DDT	<3.5	ug/kg	3.5	1	05/02/19 14:38	05/08/19 04:24	50-29-3	
Dieldrin	<3.5	ug/kg	3.5	1	05/02/19 14:38	05/08/19 04:24	60-57-1	
Endosulfan I	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:24	959-98-8	
Endosulfan II	<3.5	ug/kg	3.5	1	05/02/19 14:38	05/08/19 04:24	33213-65-9	
Endosulfan sulfate	<3.5	ug/kg	3.5	1	05/02/19 14:38	05/08/19 04:24	1031-07-8	
Endrin	<3.5	ug/kg	3.5	1	05/02/19 14:38	05/08/19 04:24	72-20-8	
Heptachlor	<1.8	ug/kg	1.8	1	05/02/19 14:38	05/08/19 04:24	76-44-8	
Surrogates								
Tetrachloro-m-xylene (S)	77	%	30-150	1	05/02/19 14:38	05/08/19 04:24	877-09-8	
Decachlorobiphenyl (S)	88	%	30-150	1	05/02/19 14:38	05/08/19 04:24	2051-24-3	
8151 Chlorinated Herbicides Analytical Method: EPA 8151A Preparation Method: EPA 8151A								
2,4,5-TP (Silvex)	<5.4	ug/kg	5.4	1	05/03/19 09:30	05/07/19 02:00	93-72-1	R1
Surrogates								
2,4-DCAA (S)	63	%	29-136	1	05/03/19 09:30	05/07/19 02:00	19719-28-9	
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	83-32-9	
Anthracene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	120-12-7	
Benzo(a)anthracene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	56-55-3	
Benzo(a)pyrene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	50-32-8	
Benzo(b)fluoranthene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	205-99-2	
Benzo(g,h,i)perylene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	191-24-2	
Benzo(k)fluoranthene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	207-08-9	
Chrysene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	218-01-9	
Dibenz(a,h)anthracene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	53-70-3	
Dibenzofuran	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	132-64-9	
Fluoranthene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	206-44-0	
Fluorene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	86-73-7	
Indeno(1,2,3-cd)pyrene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	193-39-5	
Phenanthrene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	85-01-8	
Pyrene	<72.0	ug/kg	72.0	1	05/07/19 16:49	05/09/19 16:58	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	27	%	23-120	1	05/07/19 16:49	05/09/19 16:58	4165-60-0	
2-Fluorobiphenyl (S)	36	%	30-115	1	05/07/19 16:49	05/09/19 16:58	321-60-8	
p-Terphenyl-d14 (S)	45	%	18-137	1	05/07/19 16:49	05/09/19 16:58	1718-51-0	
Phenol-d5 (S)	14	%	24-113	1	05/07/19 16:49	05/09/19 16:58	4165-62-2	S5
2-Fluorophenol (S)	14	%	25-121	1	05/07/19 16:49	05/09/19 16:58	367-12-4	S5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S25 **Lab ID: 7087818025** Collected: 05/01/19 13:50 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Surrogates								
2,4,6-Tribromophenol (S)	33	%	19-122	1	05/07/19 16:49	05/09/19 16:58	118-79-6	
2-Chlorophenol-d4 (S)	21	%	20-130	1	05/07/19 16:49	05/09/19 16:58	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	19	%	20-130	1	05/07/19 16:49	05/09/19 16:58	2199-69-1	S5
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	8.8	%	0.10	1		05/08/19 17:24		

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

QC Batch:	111892	Analysis Method:	EPA 8081B
QC Batch Method:	EPA 3546	Analysis Description:	8081 GCS Pesticides
Associated Lab Samples:	7087818011, 7087818012, 7087818013, 7087818014, 7087818023, 7087818024, 7087818025		

METHOD BLANK: 524439

Matrix: Solid

Associated Lab Samples: 7087818011, 7087818012, 7087818013, 7087818014, 7087818023, 7087818024, 7087818025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4,4'-DDD	ug/kg	<3.3	3.3	05/08/19 03:25	
4,4'-DDE	ug/kg	<3.3	3.3	05/08/19 03:25	
4,4'-DDT	ug/kg	<3.3	3.3	05/08/19 03:25	
Aldrin	ug/kg	<1.7	1.7	05/08/19 03:25	
alpha-BHC	ug/kg	<1.7	1.7	05/08/19 03:25	
beta-BHC	ug/kg	<1.7	1.7	05/08/19 03:25	
Chlordane (Technical)	ug/kg	<33.0	33.0	05/08/19 03:25	
delta-BHC	ug/kg	<1.7	1.7	05/08/19 03:25	
Dieldrin	ug/kg	<3.3	3.3	05/08/19 03:25	
Endosulfan I	ug/kg	<1.7	1.7	05/08/19 03:25	
Endosulfan II	ug/kg	<3.3	3.3	05/08/19 03:25	
Endosulfan sulfate	ug/kg	<3.3	3.3	05/08/19 03:25	
Endrin	ug/kg	<3.3	3.3	05/08/19 03:25	
gamma-BHC (Lindane)	ug/kg	<1.7	1.7	05/08/19 03:25	
Heptachlor	ug/kg	<1.7	1.7	05/08/19 03:25	
Decachlorobiphenyl (S)	%	90	30-150	05/08/19 03:25	
Tetrachloro-m-xylene (S)	%	80	30-150	05/08/19 03:25	

LABORATORY CONTROL SAMPLE: 524440

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
4,4'-DDD	ug/kg	13.3	10.8	81	57-156	
4,4'-DDE	ug/kg	13.3	10.7	80	52-135	
4,4'-DDT	ug/kg	13.3	11.7	88	64-127	
Aldrin	ug/kg	13.3	9.5	72	35-147	
alpha-BHC	ug/kg	13.3	9.8	74	41-135	
beta-BHC	ug/kg	13.3	9.3	70	42-158	
delta-BHC	ug/kg	13.3	10.2	76	48-142	
Dieldrin	ug/kg	13.3	11.4	86	47-134	
Endosulfan I	ug/kg	13.3	7.5	56	54-145	
Endosulfan II	ug/kg	13.3	8.5	64	61-137	
Endosulfan sulfate	ug/kg	13.3	11.4	85	51-154	
Endrin	ug/kg	13.3	10.8	81	37-146	
gamma-BHC (Lindane)	ug/kg	13.3	10.2	76	44-139	
Heptachlor	ug/kg	13.3	10	75	57-148	
Decachlorobiphenyl (S)	%			103	30-150	
Tetrachloro-m-xylene (S)	%			85	30-150	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

LABORATORY CONTROL SAMPLE: 524441

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Decachlorobiphenyl (S)	%			96	30-150	
Tetrachloro-m-xylene (S)	%			81	30-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 524442 524443

Parameter	Units	7087818011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
4,4'-DDD	ug/kg	38.4	17.8	17.9	13.1	41.2	-143	16	57-156	104	CH,M1,R1
4,4'-DDE	ug/kg	183	17.8	17.9	85.1	<4.4	-554	-1030	52-135		E
4,4'-DDT	ug/kg	200	17.8	17.9	44.1	145	-879	-308	64-127	107	CL,E,R1
Aldrin	ug/kg	12.9	17.8	17.9	<2.3	18.4	-72	31	35-147		M1
alpha-BHC	ug/kg	18.0	17.8	17.9	4.2	13.8	-78	-23	41-135	107	M1,R1
beta-BHC	ug/kg	31.1	17.8	17.9	22.3	<2.3	-50	-174	42-158		M1
Chlordane (Technical)	ug/kg	<44.5			<43.9	<44.2					
delta-BHC	ug/kg	2.4	17.8	17.9	3.7	2.3	7	-1	48-142	47	M1,R1
Dieldrin	ug/kg	<4.5	17.8	17.9	6.9	11.2	39	63	47-134	47	M1,R1
Endosulfan I	ug/kg	<2.3	17.8	17.9	31.0	<2.3	174	0	54-145		M1
Endosulfan II	ug/kg	<4.5	17.8	17.9	22.6	13.3	128	74	61-137	52	R1
Endosulfan sulfate	ug/kg	295	17.8	17.9	48.2	50.2	-1390	-1370	51-154	4	
Endrin	ug/kg	38.8	17.8	17.9	<4.4	23.0	-219	-88	37-146		M1
gamma-BHC (Lindane)	ug/kg	28.0	17.8	17.9	<2.3	28.7	-156	4	44-139		M1
Heptachlor	ug/kg	7.8	17.8	17.9	8.0	9.8	1	11	57-148	19	CL,M1
Decachlorobiphenyl (S)	%						115	43	30-150		
Tetrachloro-m-xylene (S)	%						41	150	30-150		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1
Pace Project No.: 7087818

QC Batch:	111888	Analysis Method:	EPA 8082A
QC Batch Method:	EPA 3546	Analysis Description:	8082 GCS PCB
Associated Lab Samples:	7087818001, 7087818002, 7087818004, 7087818007, 7087818008, 7087818011, 7087818012, 7087818013, 7087818014, 7087818016, 7087818017, 7087818018, 7087818019, 7087818020, 7087818021, 7087818022		

METHOD BLANK: 524430 Matrix: Solid
Associated Lab Samples: 7087818001, 7087818002, 7087818004, 7087818007, 7087818008, 7087818011, 7087818012, 7087818013, 7087818014, 7087818016, 7087818017, 7087818018, 7087818019, 7087818020, 7087818021, 7087818022

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<33.0	33.0	05/08/19 17:10	
PCB-1221 (Aroclor 1221)	ug/kg	<67.0	67.0	05/08/19 17:10	
PCB-1232 (Aroclor 1232)	ug/kg	<33.0	33.0	05/08/19 17:10	
PCB-1242 (Aroclor 1242)	ug/kg	<33.0	33.0	05/08/19 17:10	
PCB-1248 (Aroclor 1248)	ug/kg	<33.0	33.0	05/08/19 17:10	
PCB-1254 (Aroclor 1254)	ug/kg	<33.0	33.0	05/08/19 17:10	
PCB-1260 (Aroclor 1260)	ug/kg	<33.0	33.0	05/08/19 17:10	
Decachlorobiphenyl (S)	%	111	30-150	05/08/19 17:10	
Tetrachloro-m-xylene (S)	%	83	30-150	05/08/19 17:10	

LABORATORY CONTROL SAMPLE: 524431

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	122	73	50-136	
PCB-1260 (Aroclor 1260)	ug/kg	167	134	80	45-154	
Decachlorobiphenyl (S)	%			98	30-150	
Tetrachloro-m-xylene (S)	%			80	30-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 524432 524433

Parameter	Units	7087818001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<44.8	228	225	90.0	171	40	76	28-173	62	R1
PCB-1221 (Aroclor 1221)	ug/kg	<91.0			<91.4	<90.5					
PCB-1232 (Aroclor 1232)	ug/kg	<44.8			<45.0	<44.6					
PCB-1242 (Aroclor 1242)	ug/kg	<44.8			<45.0	<44.6					
PCB-1248 (Aroclor 1248)	ug/kg	<44.8			<45.0	<44.6					
PCB-1254 (Aroclor 1254)	ug/kg	49.1			73.2	110				40	R1
PCB-1260 (Aroclor 1260)	ug/kg	<44.8	228	225	107	167	47	74	43-138	44	R1
Decachlorobiphenyl (S)	%						38	63	30-150		
Tetrachloro-m-xylene (S)	%						36	54	30-150		

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

QC Batch:	112000	Analysis Method:	EPA 8151A
QC Batch Method:	EPA 8151A	Analysis Description:	8151 GCS Herbicides
Associated Lab Samples:	7087818011, 7087818012, 7087818013, 7087818014, 7087818023, 7087818024, 7087818025		

METHOD BLANK:	525032	Matrix:	Solid
Associated Lab Samples:	7087818011, 7087818012, 7087818013, 7087818014, 7087818023, 7087818024, 7087818025		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2,4,5-TP (Silvex)	ug/kg	<5.0	5.0	05/06/19 23:34	
2,4-DCAA (S)	%	83	29-136	05/06/19 23:34	

LABORATORY CONTROL SAMPLE: 525033

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4,5-TP (Silvex)	ug/kg	20	15.5	77	12-146	
2,4-DCAA (S)	%			84	29-136	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 525034 525035

Parameter	Units	7087818025 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
2,4,5-TP (Silvex)	ug/kg	<5.4	21.8	21.8	8.7	16.9	37	75	12-146	64	R1
2,4-DCAA (S)	%						69	80	29-136		

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

QC Batch: 112098 Analysis Method: EPA 8270D
QC Batch Method: EPA 3545A Analysis Description: 8270 Solid MSSV
Associated Lab Samples: 7087818001, 7087818002, 7087818003, 7087818004, 7087818005, 7087818006, 7087818007, 7087818008, 7087818009, 7087818010, 7087818011, 7087818012, 7087818013, 7087818014, 7087818015, 7087818016, 7087818017, 7087818018, 7087818019, 7087818020

METHOD BLANK: 525743

Matrix: Solid

Associated Lab Samples: 7087818001, 7087818002, 7087818003, 7087818004, 7087818005, 7087818006, 7087818007, 7087818008, 7087818009, 7087818010, 7087818011, 7087818012, 7087818013, 7087818014, 7087818015, 7087818016, 7087818017, 7087818018, 7087818019, 7087818020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<67.0	67.0	05/08/19 15:14	
Anthracene	ug/kg	<67.0	67.0	05/08/19 15:14	
Benzo(a)anthracene	ug/kg	<67.0	67.0	05/08/19 15:14	
Benzo(a)pyrene	ug/kg	<67.0	67.0	05/08/19 15:14	
Benzo(b)fluoranthene	ug/kg	<67.0	67.0	05/08/19 15:14	
Benzo(g,h,i)perylene	ug/kg	<67.0	67.0	05/08/19 15:14	
Benzo(k)fluoranthene	ug/kg	<67.0	67.0	05/08/19 15:14	
Chrysene	ug/kg	<67.0	67.0	05/08/19 15:14	
Dibenz(a,h)anthracene	ug/kg	<67.0	67.0	05/08/19 15:14	
Dibenzofuran	ug/kg	<67.0	67.0	05/08/19 15:14	
Fluoranthene	ug/kg	<67.0	67.0	05/08/19 15:14	
Fluorene	ug/kg	<67.0	67.0	05/08/19 15:14	
Indeno(1,2,3-cd)pyrene	ug/kg	<67.0	67.0	05/08/19 15:14	
Phenanthrene	ug/kg	<67.0	67.0	05/08/19 15:14	
Pyrene	ug/kg	<67.0	67.0	05/08/19 15:14	
1,2-Dichlorobenzene-d4 (S)	%	52	20-130	05/08/19 15:14	
2,4,6-Tribromophenol (S)	%	51	19-122	05/08/19 15:14	
2-Chlorophenol-d4 (S)	%	55	20-130	05/08/19 15:14	
2-Fluorobiphenyl (S)	%	54	30-115	05/08/19 15:14	
2-Fluorophenol (S)	%	55	25-121	05/08/19 15:14	
Nitrobenzene-d5 (S)	%	57	23-120	05/08/19 15:14	
p-Terphenyl-d14 (S)	%	62	18-137	05/08/19 15:14	
Phenol-d5 (S)	%	54	24-113	05/08/19 15:14	

LABORATORY CONTROL SAMPLE: 525744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	1670	1170	70	45-109	
Anthracene	ug/kg	1670	1240	74	50-117	
Benzo(a)anthracene	ug/kg	1670	1300	78	52-116	
Benzo(a)pyrene	ug/kg	1670	1360	81	56-119	
Benzo(b)fluoranthene	ug/kg	1670	1300	78	45-122	
Benzo(g,h,i)perylene	ug/kg	1670	1800	108	30-107	CH,L1
Benzo(k)fluoranthene	ug/kg	1670	1300	78	54-124	
Chrysene	ug/kg	1670	1310	79	48-121	
Dibenz(a,h)anthracene	ug/kg	1670	1520	91	52-109	

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

LABORATORY CONTROL SAMPLE: 525744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibenzofuran	ug/kg	1670	1130	68	48-112	
Fluoranthene	ug/kg	1670	1190	71	45-126	
Fluorene	ug/kg	1670	1140	68	47-108	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1470	88	50-108	
Phenanthrene	ug/kg	1670	1240	75	47-124	
Pyrene	ug/kg	1670	1330	80	49-132	
1,2-Dichlorobenzene-d4 (S)	%			56	20-130	
2,4,6-Tribromophenol (S)	%			74	19-122	
2-Chlorophenol-d4 (S)	%			65	20-130	
2-Fluorobiphenyl (S)	%			65	30-115	
2-Fluorophenol (S)	%			66	25-121	
Nitrobenzene-d5 (S)	%			69	23-120	
p-Terphenyl-d14 (S)	%			76	18-137	
Phenol-d5 (S)	%			65	24-113	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 525745 525746

Parameter	Units	7087818001	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	% Rec	Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.										
Acenaphthene	ug/kg	<91.4	2280	2280	772	1420	34	62	45-109	59	M1,R1			
Anthracene	ug/kg	<91.4	2280	2280	853	1550	37	68	50-117	58	M1,R1			
Benzo(a)anthracene	ug/kg	105	2280	2280	950	1700	37	70	52-116	57	M1,R1			
Benzo(a)pyrene	ug/kg	94.9	2280	2280	936	1730	37	72	56-119	59	M1,R1			
Benzo(b)fluoranthene	ug/kg	149	2280	2280	1050	2080	39	85	45-122	66	M1,R1			
Benzo(g,h,i)perylene	ug/kg	<91.4	2280	2280	636	843	28	37	30-107	28	CH,M0			
Benzo(k)fluoranthene	ug/kg	<91.4	2280	2280	1040	2110	42	89	54-124	68	M1,R1			
Chrysene	ug/kg	119	2280	2280	957	1840	37	75	48-121	63	M1,R1			
Dibenz(a,h)anthracene	ug/kg	<91.4	2280	2280	678	979	30	43	52-109	36	M1,R1			
Dibenzofuran	ug/kg	<91.4	2280	2280	766	1360	34	60	48-112	56	M1,R1			
Fluoranthene	ug/kg	179	2280	2280	848	1630	29	64	45-126	63	M1,R1			
Fluorene	ug/kg	<91.4	2280	2280	769	1400	34	61	47-108	58	M1,R1			
Indeno(1,2,3-cd)pyrene	ug/kg	<91.4	2280	2280	711	946	31	41	50-108	28	M1			
Phenanthrene	ug/kg	123	2280	2280	910	1680	34	68	47-124	59	M1,R1			
Pyrene	ug/kg	206	2280	2280	1070	2030	38	80	49-132	62	M1,R1			
1,2-Dichlorobenzene-d4 (S)	%						23	36	20-130					
2,4,6-Tribromophenol (S)	%						36	57	19-122					
2-Chlorophenol-d4 (S)	%						29	47	20-130					
2-Fluorobiphenyl (S)	%						30	53	30-115					
2-Fluorophenol (S)	%						28	47	25-121					
Nitrobenzene-d5 (S)	%						28	43	23-120					
p-Terphenyl-d14 (S)	%						42	69	18-137					
Phenol-d5 (S)	%						29	50	24-113					

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

QC Batch:	112461	Analysis Method:	EPA 8270D
QC Batch Method:	EPA 3545A	Analysis Description:	8270 Solid MSSV
Associated Lab Samples: 7087818021, 7087818024, 7087818025			

METHOD BLANK: 527745 Matrix: Solid

Associated Lab Samples: 7087818021, 7087818024, 7087818025

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<67.0	67.0	05/09/19 12:52	
Anthracene	ug/kg	<67.0	67.0	05/09/19 12:52	
Benzo(a)anthracene	ug/kg	<67.0	67.0	05/09/19 12:52	
Benzo(a)pyrene	ug/kg	<67.0	67.0	05/09/19 12:52	
Benzo(b)fluoranthene	ug/kg	<67.0	67.0	05/09/19 12:52	
Benzo(g,h,i)perylene	ug/kg	<67.0	67.0	05/09/19 12:52	
Benzo(k)fluoranthene	ug/kg	<67.0	67.0	05/09/19 12:52	
Chrysene	ug/kg	<67.0	67.0	05/09/19 12:52	
Dibenz(a,h)anthracene	ug/kg	<67.0	67.0	05/09/19 12:52	
Dibenzofuran	ug/kg	<67.0	67.0	05/09/19 12:52	
Fluoranthene	ug/kg	<67.0	67.0	05/09/19 12:52	
Fluorene	ug/kg	<67.0	67.0	05/09/19 12:52	
Indeno(1,2,3-cd)pyrene	ug/kg	<67.0	67.0	05/09/19 12:52	
Phenanthrene	ug/kg	<67.0	67.0	05/09/19 12:52	
Pyrene	ug/kg	<67.0	67.0	05/09/19 12:52	
1,2-Dichlorobenzene-d4 (S)	%	49	20-130	05/09/19 12:52	
2,4,6-Tribromophenol (S)	%	32	19-122	05/09/19 12:52	
2-Chlorophenol-d4 (S)	%	54	20-130	05/09/19 12:52	
2-Fluorobiphenyl (S)	%	55	30-115	05/09/19 12:52	
2-Fluorophenol (S)	%	53	25-121	05/09/19 12:52	
Nitrobenzene-d5 (S)	%	57	23-120	05/09/19 12:52	
p-Terphenyl-d14 (S)	%	65	18-137	05/09/19 12:52	
Phenol-d5 (S)	%	56	24-113	05/09/19 12:52	

LABORATORY CONTROL SAMPLE: 527746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	1670	1400	84	45-109	
Anthracene	ug/kg	1670	1500	90	50-117	
Benzo(a)anthracene	ug/kg	1670	1570	94	52-116	
Benzo(a)pyrene	ug/kg	1670	1590	95	56-119	
Benzo(b)fluoranthene	ug/kg	1670	1540	93	45-122	
Benzo(g,h,i)perylene	ug/kg	1670	1740	105	30-107	
Benzo(k)fluoranthene	ug/kg	1670	1610	97	54-124	
Chrysene	ug/kg	1670	1500	90	48-121	
Dibenz(a,h)anthracene	ug/kg	1670	1800	108	52-109	
Dibenzofuran	ug/kg	1670	1370	82	48-112	
Fluoranthene	ug/kg	1670	1450	87	45-126	
Fluorene	ug/kg	1670	1330	80	47-108	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1780	107	50-108	

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

LABORATORY CONTROL SAMPLE: 527746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	1670	1420	85	47-124	
Pyrene	ug/kg	1670	1560	93	49-132	
1,2-Dichlorobenzene-d4 (S)	%			70	20-130	
2,4,6-Tribromophenol (S)	%			74	19-122	
2-Chlorophenol-d4 (S)	%			81	20-130	
2-Fluorobiphenyl (S)	%			77	30-115	
2-Fluorophenol (S)	%			81	25-121	
Nitrobenzene-d5 (S)	%			81	23-120	
p-Terphenyl-d14 (S)	%			93	18-137	
Phenol-d5 (S)	%			84	24-113	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 527747 527748

Parameter	Units	30292698001		MS	MSD	MS		MSD	% Rec		RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits		
Acenaphthene	ug/kg	378 U	1880	1880	1880	1350	1590	72	84	45-109	16	
Anthracene	ug/kg	378 U	1880	1880	1880	1560	1790	83	95	50-117	14	
Benzo(a)anthracene	ug/kg	378 U	1880	1880	1880	1810	2100	96	111	52-116	15	
Benzo(a)pyrene	ug/kg	378 U	1880	1880	1880	1770	1900	94	101	56-119	7	
Benzo(b)fluoranthene	ug/kg	378 U	1880	1880	1880	1940	2180	103	116	45-122	12	
Benzo(g,h,i)perylene	ug/kg	378 U	1880	1880	1880	1340	1480	71	79	30-107	10	
Benzo(k)fluoranthene	ug/kg	378 U	1880	1880	1880	2110	2380	112	126	54-124	12 M1	
Chrysene	ug/kg	378 U	1880	1880	1880	1880	2080	100	110	48-121	10	
Dibenz(a,h)anthracene	ug/kg	378 U	1880	1880	1880	1250	1450	66	77	52-109	15	
Dibenzofuran	ug/kg	378 U	1880	1880	1880	1370	1480	73	79	48-112	8	
Fluoranthene	ug/kg	378 U	1880	1880	1880	1900	2220	101	118	45-126	16	
Fluorene	ug/kg	378 U	1880	1880	1880	1390	1630	74	86	47-108	15	
Indeno(1,2,3-cd)pyrene	ug/kg	378 U	1880	1880	1880	1470	1780	79	94	50-108	18	
Phenanthrene	ug/kg	378 U	1880	1880	1880	1830	2260	98	120	47-124	21	
Pyrene	ug/kg	392	1880	1880	1880	2070	2540	90	114	49-132	20	
1,2-Dichlorobenzene-d4 (S)	%							49	54	20-130		
2,4,6-Tribromophenol (S)	%							61	53	19-122		
2-Chlorophenol-d4 (S)	%							55	56	20-130		
2-Fluorobiphenyl (S)	%							67	72	30-115		
2-Fluorophenol (S)	%							53	51	25-121		
Nitrobenzene-d5 (S)	%							64	74	23-120		
p-Terphenyl-d14 (S)	%							81	92	18-137		
Phenol-d5 (S)	%							62	61	24-113		

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

QC Batch: 113374

Analysis Method: EPA 8270D

QC Batch Method: EPA 3545A

Analysis Description: 8270 Solid MSSV

Associated Lab Samples: 7087818022, 7087818023

METHOD BLANK: 533089

Matrix: Solid

Associated Lab Samples: 7087818022, 7087818023

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	<67.0	67.0	05/15/19 11:32	
Anthracene	ug/kg	<67.0	67.0	05/15/19 11:32	
Benzo(a)anthracene	ug/kg	<67.0	67.0	05/15/19 11:32	
Benzo(a)pyrene	ug/kg	<67.0	67.0	05/15/19 11:32	
Benzo(b)fluoranthene	ug/kg	<67.0	67.0	05/15/19 11:32	
Benzo(g,h,i)perylene	ug/kg	<67.0	67.0	05/15/19 11:32	
Benzo(k)fluoranthene	ug/kg	<67.0	67.0	05/15/19 11:32	
Chrysene	ug/kg	<67.0	67.0	05/15/19 11:32	
Dibenz(a,h)anthracene	ug/kg	<67.0	67.0	05/15/19 11:32	
Dibenzofuran	ug/kg	<67.0	67.0	05/15/19 11:32	
Fluoranthene	ug/kg	<67.0	67.0	05/15/19 11:32	
Fluorene	ug/kg	<67.0	67.0	05/15/19 11:32	
Indeno(1,2,3-cd)pyrene	ug/kg	<67.0	67.0	05/15/19 11:32	
Phenanthrene	ug/kg	<67.0	67.0	05/15/19 11:32	
Pyrene	ug/kg	<67.0	67.0	05/15/19 11:32	
1,2-Dichlorobenzene-d4 (S)	%	57	20-130	05/15/19 11:32	
2,4,6-Tribromophenol (S)	%	62	19-122	05/15/19 11:32	
2-Chlorophenol-d4 (S)	%	66	20-130	05/15/19 11:32	
2-Fluorobiphenyl (S)	%	68	30-115	05/15/19 11:32	
2-Fluorophenol (S)	%	69	25-121	05/15/19 11:32	
Nitrobenzene-d5 (S)	%	65	23-120	05/15/19 11:32	
p-Terphenyl-d14 (S)	%	92	18-137	05/15/19 11:32	
Phenol-d5 (S)	%	70	24-113	05/15/19 11:32	

LABORATORY CONTROL SAMPLE: 533090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	1670	1190	71	45-109	
Anthracene	ug/kg	1670	1320	79	50-117	
Benzo(a)anthracene	ug/kg	1670	1450	87	52-116	
Benzo(a)pyrene	ug/kg	1670	1460	87	56-119	
Benzo(b)fluoranthene	ug/kg	1670	1370	82	45-122	
Benzo(g,h,i)perylene	ug/kg	1670	1490	90	30-107	
Benzo(k)fluoranthene	ug/kg	1670	1500	90	54-124	
Chrysene	ug/kg	1670	1470	88	48-121	
Dibenz(a,h)anthracene	ug/kg	1670	1540	92	52-109	
Dibenzofuran	ug/kg	1670	1200	72	48-112	
Fluoranthene	ug/kg	1670	1420	85	45-126	
Fluorene	ug/kg	1670	1220	73	47-108	
Indeno(1,2,3-cd)pyrene	ug/kg	1670	1480	89	50-108	

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

LABORATORY CONTROL SAMPLE: 533090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	1670	1320	79	47-124	
Pyrene	ug/kg	1670	1430	86	49-132	
1,2-Dichlorobenzene-d4 (S)	%			50	20-130	
2,4,6-Tribromophenol (S)	%			88	19-122	
2-Chlorophenol-d4 (S)	%			68	20-130	
2-Fluorobiphenyl (S)	%			68	30-115	
2-Fluorophenol (S)	%			70	25-121	
Nitrobenzene-d5 (S)	%			62	23-120	
p-Terphenyl-d14 (S)	%			94	18-137	
Phenol-d5 (S)	%			74	24-113	

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

QC Batch:	112576	Analysis Method:	ASTM D2216-92M
QC Batch Method:	ASTM D2216-92M	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	7087818001, 7087818002, 7087818003, 7087818004, 7087818005, 7087818006, 7087818007, 7087818008, 7087818009, 7087818010, 7087818011, 7087818012, 7087818013, 7087818014, 7087818015		

SAMPLE DUPLICATE: 528327

Parameter	Units	7087818002 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	5.7	5.3	6	

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QUALITY CONTROL DATA

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

QC Batch:	112802	Analysis Method:	ASTM D2216-92M
QC Batch Method:	ASTM D2216-92M	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	7087818016, 7087818017, 7087818018, 7087818019, 7087818020, 7087818021, 7087818022, 7087818023, 7087818024, 7087818025		

SAMPLE DUPLICATE: 529544

Parameter	Units	7088205002 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	7.6	8.2	7	

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QUALIFIERS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 7087818002

[1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818003

[1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818004

[1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818005

[1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818006

[1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818007

[1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818008

[1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

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QUALIFIERS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

SAMPLE QUALIFIERS

Sample: 7087818009

- [1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818011

- [1] Method 8081B: The breakdown for DDT exceeded acceptance limits due to sample matrix.
[2] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818012

- [1] Method 8081B: The breakdown for DDT exceeded acceptance limits due to sample matrix.

Sample: 7087818013

- [1] 081B: The breakdown for DDT exceeded acceptance limits due to sample matrix.

Sample: 7087818016

- [1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818017

- [1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

Sample: 7087818018

- [1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. This would bias results high however, no target compounds associated with perylene-d12 were detected.

Sample: 525746

- [1] Method 8270D: The internal standard response for perylene-d12 fell beneath the lower acceptance limits. Reanalysis confirmed the low internal standard response. Results may be biased high.

ANALYTE QUALIFIERS

CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
CL	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S4	Surrogate recovery not evaluated against control limits due to sample dilution.
S5	Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7087818011	S11	EPA 3546	111892	EPA 8081B	112354
7087818012	S12	EPA 3546	111892	EPA 8081B	112354
7087818013	S13	EPA 3546	111892	EPA 8081B	112354
7087818014	S14	EPA 3546	111892	EPA 8081B	112354
7087818023	S23	EPA 3546	111892	EPA 8081B	112354
7087818024	S24	EPA 3546	111892	EPA 8081B	112354
7087818025	S25	EPA 3546	111892	EPA 8081B	112354
7087818001	S1	EPA 3546	111888	EPA 8082A	112349
7087818002	S2	EPA 3546	111888	EPA 8082A	112349
7087818004	S4	EPA 3546	111888	EPA 8082A	112349
7087818007	S7	EPA 3546	111888	EPA 8082A	112349
7087818008	S8	EPA 3546	111888	EPA 8082A	112349
7087818011	S11	EPA 3546	111888	EPA 8082A	112349
7087818012	S12	EPA 3546	111888	EPA 8082A	112349
7087818013	S13	EPA 3546	111888	EPA 8082A	112349
7087818014	S14	EPA 3546	111888	EPA 8082A	112349
7087818016	S16	EPA 3546	111888	EPA 8082A	112349
7087818017	S17	EPA 3546	111888	EPA 8082A	112349
7087818018	S18	EPA 3546	111888	EPA 8082A	112349
7087818019	S19	EPA 3546	111888	EPA 8082A	112349
7087818020	S20	EPA 3546	111888	EPA 8082A	112349
7087818021	S21	EPA 3546	111888	EPA 8082A	112349
7087818022	S22	EPA 3546	111888	EPA 8082A	112349
7087818011	S11	EPA 8151A	112000	EPA 8151A	112331
7087818012	S12	EPA 8151A	112000	EPA 8151A	112331
7087818013	S13	EPA 8151A	112000	EPA 8151A	112331
7087818014	S14	EPA 8151A	112000	EPA 8151A	112331
7087818023	S23	EPA 8151A	112000	EPA 8151A	112331
7087818024	S24	EPA 8151A	112000	EPA 8151A	112331
7087818025	S25	EPA 8151A	112000	EPA 8151A	112331
7087818001	S1	EPA 3545A	112098	EPA 8270D	112553
7087818002	S2	EPA 3545A	112098	EPA 8270D	112553
7087818003	S3	EPA 3545A	112098	EPA 8270D	112553
7087818004	S4	EPA 3545A	112098	EPA 8270D	112553
7087818005	S5	EPA 3545A	112098	EPA 8270D	112553
7087818006	S6	EPA 3545A	112098	EPA 8270D	112553
7087818007	S7	EPA 3545A	112098	EPA 8270D	112553
7087818008	S8	EPA 3545A	112098	EPA 8270D	112553
7087818009	S9	EPA 3545A	112098	EPA 8270D	112553
7087818010	S10	EPA 3545A	112098	EPA 8270D	112553
7087818011	S11	EPA 3545A	112098	EPA 8270D	112553
7087818012	S12	EPA 3545A	112098	EPA 8270D	112553
7087818013	S13	EPA 3545A	112098	EPA 8270D	112553
7087818014	S14	EPA 3545A	112098	EPA 8270D	112553
7087818015	S15	EPA 3545A	112098	EPA 8270D	112553
7087818016	S16	EPA 3545A	112098	EPA 8270D	112553
7087818017	S17	EPA 3545A	112098	EPA 8270D	112553

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7087818018	S18	EPA 3545A	112098	EPA 8270D	112553
7087818019	S19	EPA 3545A	112098	EPA 8270D	112553
7087818020	S20	EPA 3545A	112098	EPA 8270D	112553
7087818021	S21	EPA 3545A	112461	EPA 8270D	112818
7087818022	S22	EPA 3545A	113374	EPA 8270D	113669
7087818023	S23	EPA 3545A	113374	EPA 8270D	113669
7087818024	S24	EPA 3545A	112461	EPA 8270D	112818
7087818025	S25	EPA 3545A	112461	EPA 8270D	112818
7087818001	S1	ASTM D2216-92M	112576		
7087818002	S2	ASTM D2216-92M	112576		
7087818003	S3	ASTM D2216-92M	112576		
7087818004	S4	ASTM D2216-92M	112576		
7087818005	S5	ASTM D2216-92M	112576		
7087818006	S6	ASTM D2216-92M	112576		
7087818007	S7	ASTM D2216-92M	112576		
7087818008	S8	ASTM D2216-92M	112576		
7087818009	S9	ASTM D2216-92M	112576		
7087818010	S10	ASTM D2216-92M	112576		
7087818011	S11	ASTM D2216-92M	112576		
7087818012	S12	ASTM D2216-92M	112576		
7087818013	S13	ASTM D2216-92M	112576		
7087818014	S14	ASTM D2216-92M	112576		
7087818015	S15	ASTM D2216-92M	112576		
7087818016	S16	ASTM D2216-92M	112802		
7087818017	S17	ASTM D2216-92M	112802		
7087818018	S18	ASTM D2216-92M	112802		
7087818019	S19	ASTM D2216-92M	112802		
7087818020	S20	ASTM D2216-92M	112802		
7087818021	S21	ASTM D2216-92M	112802		
7087818022	S22	ASTM D2216-92M	112802		
7087818023	S23	ASTM D2216-92M	112802		
7087818024	S24	ASTM D2216-92M	112802		
7087818025	S25	ASTM D2216-92M	112802		

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BOMARC - SOILS 4/30

Pace Project No.: 7087816

Sample: S11 **Lab ID: 7087816001** Collected: 04/30/19 12:15 Received: 05/01/19 15:28 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Bismuth-212	EPA 901.1	1.376 ± 0.657 (0.561) C:NA T:NA	pCi/g	05/20/19 14:15	14913-49-6	
Bismuth-214	EPA 901.1	0.514 ± 0.138 (0.095) C:NA T:NA	pCi/g	05/20/19 14:15	14733-03-0	
Lead-212	EPA 901.1	0.517 ± 0.126 (0.124) C:NA T:NA	pCi/g	05/20/19 14:15	15092-94-1	
Lead-214	EPA 901.1	0.389 ± 0.138 (0.136) C:NA T:NA	pCi/g	05/20/19 14:15	15067-28-4	
Potassium-40	EPA 901.1	2.493 ± 1.046 (0.863) C:NA T:NA	pCi/g	05/20/19 14:15	13966-00-2	
Radium-226	EPA 901.1	0.329 ± 1.349 (1.676) C:NA T:NA	pCi/g	05/20/19 14:15	13982-63-3	RA
Radium-228	EPA 901.1	0.865 ± 0.267 (0.153) C:NA T:NA	pCi/g	05/20/19 14:15	15262-20-1	
Thallium-208	EPA 901.1	0.224 ± 0.073 (0.054) C:NA T:NA	pCi/g	05/20/19 14:15	14913-50-9	
Thorium-234	EPA 901.1	0.000 ± 1.600 (3.108) C:NA T:NA	pCi/g	05/20/19 14:15	15065-10-8	
Uranium-235	EPA 901.1	0.000 ± 0.114 (0.529) C:NA T:NA	pCi/g	05/20/19 14:15	15117-96-1	
Gross Alpha	EPA 9310	7.16 ± 5.51 (10.2) C:NA T:NA	pCi/g	05/10/19 18:20	12587-46-1	
Gross Beta	EPA 9310	4.97 ± 3.48 (6.65) C:NA T:NA	pCi/g	05/10/19 18:20	12587-47-2	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BOMARC - SOILS 4/30

Pace Project No.: 7087816

Sample: S12 **Lab ID: 7087816002** Collected: 04/30/19 12:30 Received: 05/01/19 15:28 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Bismuth-212	EPA 901.1	0.694 ± 0.667 (1.126) C:NA T:NA	pCi/g	05/20/19 14:16	14913-49-6	
Bismuth-214	EPA 901.1	0.574 ± 0.168 (0.128) C:NA T:NA	pCi/g	05/20/19 14:16	14733-03-0	
Lead-212	EPA 901.1	0.883 ± 0.166 (0.115) C:NA T:NA	pCi/g	05/20/19 14:16	15092-94-1	
Lead-214	EPA 901.1	0.565 ± 0.137 (0.110) C:NA T:NA	pCi/g	05/20/19 14:16	15067-28-4	
Potassium-40	EPA 901.1	3.921 ± 0.991 (0.599) C:NA T:NA	pCi/g	05/20/19 14:16	13966-00-2	
Radium-226	EPA 901.1	0.976 ± 1.084 (1.297) C:NA T:NA	pCi/g	05/20/19 14:16	13982-63-3	RA
Radium-228	EPA 901.1	0.936 ± 0.254 (0.156) C:NA T:NA	pCi/g	05/20/19 14:16	15262-20-1	
Thallium-208	EPA 901.1	0.275 ± 0.084 (0.066) C:NA T:NA	pCi/g	05/20/19 14:16	14913-50-9	
Thorium-234	EPA 901.1	0.238 ± 1.081 (1.374) C:NA T:NA	pCi/g	05/20/19 14:16	15065-10-8	
Uranium-235	EPA 901.1	0.167 ± 0.205 (0.390) C:NA T:NA	pCi/g	05/20/19 14:16	15117-96-1	
Gross Alpha	EPA 9310	8.94 ± 5.32 (8.72) C:NA T:NA	pCi/g	05/10/19 18:22	12587-46-1	
Gross Beta	EPA 9310	5.62 ± 2.81 (4.79) C:NA T:NA	pCi/g	05/10/19 18:22	12587-47-2	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BOMARC - SOILS 4/30

Pace Project No.: 7087816

Sample: S13 **Lab ID: 7087816003** Collected: 04/30/19 12:55 Received: 05/01/19 15:28 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Bismuth-212	EPA 901.1	1.337 ± 0.681 (0.588) C:NA T:NA	pCi/g	05/20/19 14:47	14913-49-6	
Bismuth-214	EPA 901.1	0.554 ± 0.176 (0.136) C:NA T:NA	pCi/g	05/20/19 14:47	14733-03-0	
Lead-212	EPA 901.1	0.706 ± 0.142 (0.110) C:NA T:NA	pCi/g	05/20/19 14:47	15092-94-1	
Lead-214	EPA 901.1	0.532 ± 0.168 (0.135) C:NA T:NA	pCi/g	05/20/19 14:47	15067-28-4	
Potassium-40	EPA 901.1	3.152 ± 0.982 (0.715) C:NA T:NA	pCi/g	05/20/19 14:47	13966-00-2	
Radium-226	EPA 901.1	1.431 ± 1.198 (1.359) C:NA T:NA	pCi/g	05/20/19 14:47	13982-63-3	RA
Radium-228	EPA 901.1	0.646 ± 0.219 (0.150) C:NA T:NA	pCi/g	05/20/19 14:47	15262-20-1	
Thallium-208	EPA 901.1	0.193 ± 0.057 (0.042) C:NA T:NA	pCi/g	05/20/19 14:47	14913-50-9	
Thorium-234	EPA 901.1	0.755 ± 2.060 (2.547) C:NA T:NA	pCi/g	05/20/19 14:47	15065-10-8	
Uranium-235	EPA 901.1	0.000 ± 0.159 (0.527) C:NA T:NA	pCi/g	05/20/19 14:47	15117-96-1	
Gross Alpha	EPA 9310	7.92 ± 4.52 (6.22) C:NA T:NA	pCi/g	05/10/19 18:50	12587-46-1	
Gross Beta	EPA 9310	7.18 ± 3.66 (6.32) C:NA T:NA	pCi/g	05/10/19 18:50	12587-47-2	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BOMARC - SOILS 4/30

Pace Project No.: 7087816

Sample: S14 **Lab ID: 7087816004** Collected: 04/30/19 13:30 Received: 05/01/19 15:28 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Bismuth-212	EPA 901.1	1.182 ± 0.892 (0.974) C:NA T:NA	pCi/g	05/20/19 14:48	14913-49-6	
Bismuth-214	EPA 901.1	0.710 ± 0.178 (0.111) C:NA T:NA	pCi/g	05/20/19 14:48	14733-03-0	
Lead-212	EPA 901.1	0.822 ± 0.158 (0.114) C:NA T:NA	pCi/g	05/20/19 14:48	15092-94-1	
Lead-214	EPA 901.1	0.663 ± 0.161 (0.111) C:NA T:NA	pCi/g	05/20/19 14:48	15067-28-4	
Potassium-40	EPA 901.1	5.085 ± 1.163 (0.601) C:NA T:NA	pCi/g	05/20/19 14:48	13966-00-2	
Radium-226	EPA 901.1	0.746 ± 1.117 (1.356) C:NA T:NA	pCi/g	05/20/19 14:48	13982-63-3	RA
Radium-228	EPA 901.1	1.205 ± 0.263 (0.181) C:NA T:NA	pCi/g	05/20/19 14:48	15262-20-1	
Thallium-208	EPA 901.1	0.333 ± 0.084 (0.050) C:NA T:NA	pCi/g	05/20/19 14:48	14913-50-9	
Thorium-234	EPA 901.1	0.717 ± 0.684 (1.089) C:NA T:NA	pCi/g	05/20/19 14:48	15065-10-8	
Uranium-235	EPA 901.1	0.000 ± 0.121 (0.421) C:NA T:NA	pCi/g	05/20/19 14:48	15117-96-1	
Gross Alpha	EPA 9310	7.06 ± 4.15 (5.61) C:NA T:NA	pCi/g	05/10/19 18:51	12587-46-1	
Gross Beta	EPA 9310	5.66 ± 3.39 (6.15) C:NA T:NA	pCi/g	05/10/19 18:51	12587-47-2	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: BOMARC - SOILS 4/30

Pace Project No.: 7087816

QC Batch:	343309	Analysis Method:	EPA 901.1
QC Batch Method:	EPA 901.1	Analysis Description:	901.1 Gamma Spec
Associated Lab Samples:	7087816001, 7087816002, 7087816003		

METHOD BLANK:	1670957	Matrix:	Solid
Associated Lab Samples:	7087816001, 7087816002, 7087816003, 7087816004		

Parameter	Act ± Unc (MDC) Carr Trac		Units	Analyzed	Qualifiers
Bismuth-212	0.018 ± 0.830	(0.948) C:NA T:NA	pCi/g	05/20/19 13:47	
Bismuth-214	0.246 ± 0.194	(0.196) C:NA T:NA	pCi/g	05/20/19 13:47	
Lead-212	0.000 ± 0.061	(0.130) C:NA T:NA	pCi/g	05/20/19 13:47	
Lead-214	0.098 ± 0.153	(0.175) C:NA T:NA	pCi/g	05/20/19 13:47	
Potassium-40	0.166 ± 0.347	(0.611) C:NA T:NA	pCi/g	05/20/19 13:47	
Radium-226	0.036 ± 0.913	(1.312) C:NA T:NA	pCi/g	05/20/19 13:47	RA
Radium-228	0.000 ± 0.031	(0.277) C:NA T:NA	pCi/g	05/20/19 13:47	
Thallium-208	0.023 ± 0.026	(0.078) C:NA T:NA	pCi/g	05/20/19 13:47	
Thorium-234	0.265 ± 1.438	(1.962) C:NA T:NA	pCi/g	05/20/19 13:47	
Uranium-235	0.000 ± 0.173	(0.460) C:NA T:NA	pCi/g	05/20/19 13:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: BOMARC - SOILS 4/30

Pace Project No.: 7087816

QC Batch:	341778	Analysis Method:	EPA 9310
QC Batch Method:	EPA 9310	Analysis Description:	9310 Gross Alpha/Beta
Associated Lab Samples:	7087816001, 7087816002, 7087816003, 7087816004		

METHOD BLANK:	1663550	Matrix:	Solid
Associated Lab Samples:	7087816001, 7087816002, 7087816003, 7087816004		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	-0.100 ± 0.102 (0.290) C:NA T:NA	pCi/g	05/10/19 18:17	
Gross Beta	-0.024 ± 0.108 (0.261) C:NA T:NA	pCi/g	05/10/19 18:17	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: BOMARC - SOILS 4/30
Pace Project No.: 7087816

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Act - Activity
Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).
Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)
(MDC) - Minimum Detectable Concentration
Trac - Tracer Recovery (%)
Carr - Carrier Recovery (%)
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

RA The reported Ra-226 results were determined using a direct gamma emission (186 keV) shared by both Ra-226 and naturally-occurring U-235. The reported Ra-226 results were determined assuming the shared energy peak is attributable exclusively to Ra-226. Reported results for Ra-226 may be biased high if U-235 is present in the sample.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BOMARC - SOILS 4/30

Pace Project No.: 7087816

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7087816002	S12	ASTM D2974-87	343754		
7087816003	S13	ASTM D2974-87	343754		
7087816004	S14	ASTM D2974-87	343754		
7087816001	S11	EPA 901.1	343309		
7087816002	S12	EPA 901.1	343309		
7087816003	S13	EPA 901.1	343309		
7087816004	S14	EPA 901.1	343309		
7087816001	S11	EPA 9310	341778		
7087816002	S12	EPA 9310	341778		
7087816003	S13	EPA 9310	341778		
7087816004	S14	EPA 9310	341778		

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January 17, 2020

Edward Roe
SC Dept. Health Services
15 Horseblock Place
Farmingville, NY 11738

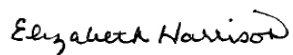
RE: Project: BOMARC- SOILS 12/30
Pace Project No.: 70116954

Dear Edward Roe:

Enclosed are the analytical results for sample(s) received by the laboratory on January 02, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Elizabeth Harrison
betty.harrison@pacelabs.com
(631)694-3040
Project Manager

Enclosures

cc: Edward Roe, SC Dept. Health Services



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Pace Analytical Services Long Island

575 Broad Hollow Rd, Melville, NY 11747

New York Certification #: 10478 Primary Accrediting Body

New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350

Connecticut Certification #: PH-0435

Maryland Certification #: 208

Rhode Island Certification #: LAO00340

Massachusetts Certification #: M-NY026

New Hampshire Certification #: 2987

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Method: EPA 8082A

Description: 8082 GCS PCB

Client: SC Dept. Health Services

Date: January 17, 2020

General Information:

70 samples were analyzed for EPA 8082A. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-1 **Lab ID: 70116954001** Collected: 12/30/19 11:00 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<33.3	ug/kg	33.3	1	01/02/20 23:29	01/06/20 18:51	12674-11-2	
PCB-1221 (Aroclor 1221)	<67.5	ug/kg	67.5	1	01/02/20 23:29	01/06/20 18:51	11104-28-2	
PCB-1232 (Aroclor 1232)	<33.3	ug/kg	33.3	1	01/02/20 23:29	01/06/20 18:51	11141-16-5	
PCB-1242 (Aroclor 1242)	<33.3	ug/kg	33.3	1	01/02/20 23:29	01/06/20 18:51	53469-21-9	
PCB-1248 (Aroclor 1248)	<33.3	ug/kg	33.3	1	01/02/20 23:29	01/06/20 18:51	12672-29-6	
PCB-1254 (Aroclor 1254)	<33.3	ug/kg	33.3	1	01/02/20 23:29	01/06/20 18:51	11097-69-1	
PCB-1260 (Aroclor 1260)	<33.3	ug/kg	33.3	1	01/02/20 23:29	01/06/20 18:51	11096-82-5	
PCB, Total	<67.5	ug/kg	67.5	1	01/02/20 23:29	01/06/20 18:51	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	75	%	30-150	1	01/02/20 23:29	01/06/20 18:51	877-09-8	
Decachlorobiphenyl (S)	104	%	30-150	1	01/02/20 23:29	01/06/20 18:51	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	4.0	%	0.10	1		01/02/20 19:23		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-2 **Lab ID: 70116954002** Collected: 12/30/19 11:01 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<32.8	ug/kg	32.8	1	01/02/20 23:29	01/06/20 19:32	12674-11-2	
PCB-1221 (Aroclor 1221)	<66.5	ug/kg	66.5	1	01/02/20 23:29	01/06/20 19:32	11104-28-2	
PCB-1232 (Aroclor 1232)	<32.8	ug/kg	32.8	1	01/02/20 23:29	01/06/20 19:32	11141-16-5	
PCB-1242 (Aroclor 1242)	<32.8	ug/kg	32.8	1	01/02/20 23:29	01/06/20 19:32	53469-21-9	
PCB-1248 (Aroclor 1248)	<32.8	ug/kg	32.8	1	01/02/20 23:29	01/06/20 19:32	12672-29-6	
PCB-1254 (Aroclor 1254)	<32.8	ug/kg	32.8	1	01/02/20 23:29	01/06/20 19:32	11097-69-1	
PCB-1260 (Aroclor 1260)	<32.8	ug/kg	32.8	1	01/02/20 23:29	01/06/20 19:32	11096-82-5	
PCB, Total	<66.5	ug/kg	66.5	1	01/02/20 23:29	01/06/20 19:32	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	77	%	30-150	1	01/02/20 23:29	01/06/20 19:32	877-09-8	
Decachlorobiphenyl (S)	98	%	30-150	1	01/02/20 23:29	01/06/20 19:32	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	1.8	%	0.10	1		01/02/20 19:25		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-3 **Lab ID: 70116954003** Collected: 12/30/19 11:06 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 19:46	12674-11-2	
PCB-1221 (Aroclor 1221)	<72.3	ug/kg	72.3	1	01/02/20 23:29	01/06/20 19:46	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 19:46	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 19:46	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 19:46	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 19:46	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 19:46	11096-82-5	
PCB, Total	<72.3	ug/kg	72.3	1	01/02/20 23:29	01/06/20 19:46	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	103	%	30-150	1	01/02/20 23:29	01/06/20 19:46	877-09-8	
Decachlorobiphenyl (S)	113	%	30-150	1	01/02/20 23:29	01/06/20 19:46	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	7.5	%	0.10	1		01/02/20 19:26		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-4 **Lab ID: 70116954004** Collected: 12/30/19 11:06 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.4	ug/kg	36.4	1	01/02/20 23:29	01/06/20 19:59	12674-11-2	
PCB-1221 (Aroclor 1221)	<73.8	ug/kg	73.8	1	01/02/20 23:29	01/06/20 19:59	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.4	ug/kg	36.4	1	01/02/20 23:29	01/06/20 19:59	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.4	ug/kg	36.4	1	01/02/20 23:29	01/06/20 19:59	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.4	ug/kg	36.4	1	01/02/20 23:29	01/06/20 19:59	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.4	ug/kg	36.4	1	01/02/20 23:29	01/06/20 19:59	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.4	ug/kg	36.4	1	01/02/20 23:29	01/06/20 19:59	11096-82-5	
PCB, Total	<73.8	ug/kg	73.8	1	01/02/20 23:29	01/06/20 19:59	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	89	%	30-150	1	01/02/20 23:29	01/06/20 19:59	877-09-8	
Decachlorobiphenyl (S)	100	%	30-150	1	01/02/20 23:29	01/06/20 19:59	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	9.3	%	0.10	1		01/02/20 19:27		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-5 **Lab ID: 70116954005** Collected: 12/30/19 11:11 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 20:13	12674-11-2	
PCB-1221 (Aroclor 1221)	<72.2	ug/kg	72.2	1	01/02/20 23:29	01/06/20 20:13	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 20:13	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 20:13	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 20:13	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 20:13	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.6	ug/kg	35.6	1	01/02/20 23:29	01/06/20 20:13	11096-82-5	
PCB, Total	<72.2	ug/kg	72.2	1	01/02/20 23:29	01/06/20 20:13	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	82	%	30-150	1	01/02/20 23:29	01/06/20 20:13	877-09-8	
Decachlorobiphenyl (S)	78	%	30-150	1	01/02/20 23:29	01/06/20 20:13	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	10	%	0.10	1		01/02/20 19:28		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-6 **Lab ID: 70116954006** Collected: 12/30/19 11:12 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 20:27	12674-11-2	
PCB-1221 (Aroclor 1221)	<74.9	ug/kg	74.9	1	01/02/20 23:29	01/06/20 20:27	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 20:27	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 20:27	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 20:27	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 20:27	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 20:27	11096-82-5	
PCB, Total	<74.9	ug/kg	74.9	1	01/02/20 23:29	01/06/20 20:27	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	95	%	30-150	1	01/02/20 23:29	01/06/20 20:27	877-09-8	
Decachlorobiphenyl (S)	74	%	30-150	1	01/02/20 23:29	01/06/20 20:27	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	11.3	%	0.10	1		01/02/20 19:30		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-7 **Lab ID:** 70116954007 **Collected:** 12/30/19 11:14 **Received:** 01/02/20 11:16 **Matrix:** Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 20:40	12674-11-2	
PCB-1221 (Aroclor 1221)	<74.3	ug/kg	74.3	1	01/02/20 23:29	01/06/20 20:40	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 20:40	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 20:40	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 20:40	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 20:40	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 20:40	11096-82-5	
PCB, Total	<74.3	ug/kg	74.3	1	01/02/20 23:29	01/06/20 20:40	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	85	%	30-150	1	01/02/20 23:29	01/06/20 20:40	877-09-8	
Decachlorobiphenyl (S)	68	%	30-150	1	01/02/20 23:29	01/06/20 20:40	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	11.4	%	0.10	1		01/02/20 19:31		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-8 **Lab ID: 70116954008** Collected: 12/30/19 11:14 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<39.7	ug/kg	39.7	1	01/02/20 23:29	01/06/20 20:54	12674-11-2	
PCB-1221 (Aroclor 1221)	<80.6	ug/kg	80.6	1	01/02/20 23:29	01/06/20 20:54	11104-28-2	
PCB-1232 (Aroclor 1232)	<39.7	ug/kg	39.7	1	01/02/20 23:29	01/06/20 20:54	11141-16-5	
PCB-1242 (Aroclor 1242)	<39.7	ug/kg	39.7	1	01/02/20 23:29	01/06/20 20:54	53469-21-9	
PCB-1248 (Aroclor 1248)	<39.7	ug/kg	39.7	1	01/02/20 23:29	01/06/20 20:54	12672-29-6	
PCB-1254 (Aroclor 1254)	<39.7	ug/kg	39.7	1	01/02/20 23:29	01/06/20 20:54	11097-69-1	
PCB-1260 (Aroclor 1260)	<39.7	ug/kg	39.7	1	01/02/20 23:29	01/06/20 20:54	11096-82-5	
PCB, Total	<80.6	ug/kg	80.6	1	01/02/20 23:29	01/06/20 20:54	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	82	%	30-150	1	01/02/20 23:29	01/06/20 20:54	877-09-8	
Decachlorobiphenyl (S)	68	%	30-150	1	01/02/20 23:29	01/06/20 20:54	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	17.0	%	0.10	1		01/02/20 19:32		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-9 **Lab ID: 70116954009** Collected: 12/30/19 11:14 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:07	12674-11-2	
PCB-1221 (Aroclor 1221)	<76.1	ug/kg	76.1	1	01/02/20 23:29	01/06/20 21:07	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:07	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:07	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:07	12672-29-6	
PCB-1254 (Aroclor 1254)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:07	11097-69-1	
PCB-1260 (Aroclor 1260)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:07	11096-82-5	
PCB, Total	<76.1	ug/kg	76.1	1	01/02/20 23:29	01/06/20 21:07	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	76	%	30-150	1	01/02/20 23:29	01/06/20 21:07	877-09-8	
Decachlorobiphenyl (S)	68	%	30-150	1	01/02/20 23:29	01/06/20 21:07	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	12.7	%	0.10	1		01/02/20 19:33		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-10 **Lab ID: 70116954010** Collected: 12/30/19 11:27 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 21:21	12674-11-2	
PCB-1221 (Aroclor 1221)	<75.0	ug/kg	75.0	1	01/02/20 23:29	01/06/20 21:21	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 21:21	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 21:21	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 21:21	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 21:21	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 21:21	11096-82-5	
PCB, Total	<75.0	ug/kg	75.0	1	01/02/20 23:29	01/06/20 21:21	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	78	%	30-150	1	01/02/20 23:29	01/06/20 21:21	877-09-8	
Decachlorobiphenyl (S)	82	%	30-150	1	01/02/20 23:29	01/06/20 21:21	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	11.6	%	0.10	1		01/02/20 19:34		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-11 **Lab ID: 70116954011** Collected: 12/30/19 11:27 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<38.2	ug/kg	38.2	1	01/02/20 23:29	01/06/20 21:34	12674-11-2	
PCB-1221 (Aroclor 1221)	<77.7	ug/kg	77.7	1	01/02/20 23:29	01/06/20 21:34	11104-28-2	
PCB-1232 (Aroclor 1232)	<38.2	ug/kg	38.2	1	01/02/20 23:29	01/06/20 21:34	11141-16-5	
PCB-1242 (Aroclor 1242)	<38.2	ug/kg	38.2	1	01/02/20 23:29	01/06/20 21:34	53469-21-9	
PCB-1248 (Aroclor 1248)	<38.2	ug/kg	38.2	1	01/02/20 23:29	01/06/20 21:34	12672-29-6	
PCB-1254 (Aroclor 1254)	<38.2	ug/kg	38.2	1	01/02/20 23:29	01/06/20 21:34	11097-69-1	
PCB-1260 (Aroclor 1260)	73.3	ug/kg	38.2	1	01/02/20 23:29	01/06/20 21:34	11096-82-5	
PCB, Total	<77.7	ug/kg	77.7	1	01/02/20 23:29	01/06/20 21:34	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	86	%	30-150	1	01/02/20 23:29	01/06/20 21:34	877-09-8	
Decachlorobiphenyl (S)	82	%	30-150	1	01/02/20 23:29	01/06/20 21:34	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	13.7	%	0.10	1		01/02/20 19:35		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-12 **Lab ID: 70116954012** Collected: 12/31/19 08:30 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:48	12674-11-2	
PCB-1221 (Aroclor 1221)	<76.2	ug/kg	76.2	1	01/02/20 23:29	01/06/20 21:48	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:48	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:48	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:48	12672-29-6	
PCB-1254 (Aroclor 1254)	<37.5	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:48	11097-69-1	
PCB-1260 (Aroclor 1260)	50.2	ug/kg	37.5	1	01/02/20 23:29	01/06/20 21:48	11096-82-5	
PCB, Total	<76.2	ug/kg	76.2	1	01/02/20 23:29	01/06/20 21:48	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	76	%	30-150	1	01/02/20 23:29	01/06/20 21:48	877-09-8	
Decachlorobiphenyl (S)	80	%	30-150	1	01/02/20 23:29	01/06/20 21:48	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	14.0	%	0.10	1		01/02/20 19:37		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-13 **Lab ID: 70116954013** Collected: 12/31/19 08:33 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.9	ug/kg	37.9	1	01/02/20 23:29	01/06/20 22:01	12674-11-2	
PCB-1221 (Aroclor 1221)	<77.0	ug/kg	77.0	1	01/02/20 23:29	01/06/20 22:01	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.9	ug/kg	37.9	1	01/02/20 23:29	01/06/20 22:01	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.9	ug/kg	37.9	1	01/02/20 23:29	01/06/20 22:01	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.9	ug/kg	37.9	1	01/02/20 23:29	01/06/20 22:01	12672-29-6	
PCB-1254 (Aroclor 1254)	<37.9	ug/kg	37.9	1	01/02/20 23:29	01/06/20 22:01	11097-69-1	
PCB-1260 (Aroclor 1260)	49.7	ug/kg	37.9	1	01/02/20 23:29	01/06/20 22:01	11096-82-5	
PCB, Total	<77.0	ug/kg	77.0	1	01/02/20 23:29	01/06/20 22:01	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	82	%	30-150	1	01/02/20 23:29	01/06/20 22:01	877-09-8	
Decachlorobiphenyl (S)	83	%	30-150	1	01/02/20 23:29	01/06/20 22:01	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	13.4	%	0.10	1		01/02/20 19:38		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-14 Lab ID: 70116954014 Collected: 12/31/19 08:34 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.4	ug/kg	35.4	1	01/02/20 23:29	01/08/20 05:18	12674-11-2	
PCB-1221 (Aroclor 1221)	<71.9	ug/kg	71.9	1	01/02/20 23:29	01/08/20 05:18	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.4	ug/kg	35.4	1	01/02/20 23:29	01/08/20 05:18	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.4	ug/kg	35.4	1	01/02/20 23:29	01/08/20 05:18	53469-21-9	
PCB-1248 (Aroclor 1248)	534	ug/kg	35.4	1	01/02/20 23:29	01/08/20 05:18	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.4	ug/kg	35.4	1	01/02/20 23:29	01/08/20 05:18	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.4	ug/kg	35.4	1	01/02/20 23:29	01/08/20 05:18	11096-82-5	
PCB, Total	534	ug/kg	71.9	1	01/02/20 23:29	01/08/20 05:18	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	98	%	30-150	1	01/02/20 23:29	01/08/20 05:18	877-09-8	
Decachlorobiphenyl (S)	117	%	30-150	1	01/02/20 23:29	01/08/20 05:18	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	9.7	%	0.10	1		01/02/20 19:40		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-15 **Lab ID: 70116954015** Collected: 12/31/19 08:37 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 22:29	12674-11-2	
PCB-1221 (Aroclor 1221)	<74.9	ug/kg	74.9	1	01/02/20 23:29	01/06/20 22:29	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 22:29	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 22:29	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 22:29	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.9	ug/kg	36.9	1	01/02/20 23:29	01/06/20 22:29	11097-69-1	
PCB-1260 (Aroclor 1260)	55.4	ug/kg	36.9	1	01/02/20 23:29	01/06/20 22:29	11096-82-5	
PCB, Total	<74.9	ug/kg	74.9	1	01/02/20 23:29	01/06/20 22:29	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	92	%	30-150	1	01/02/20 23:29	01/06/20 22:29	877-09-8	
Decachlorobiphenyl (S)	108	%	30-150	1	01/02/20 23:29	01/06/20 22:29	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	13.0	%	0.10	1		01/02/20 19:41		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-16 **Lab ID: 70116954016** Collected: 12/31/19 08:40 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 22:42	12674-11-2	
PCB-1221 (Aroclor 1221)	<74.3	ug/kg	74.3	1	01/02/20 23:29	01/06/20 22:42	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 22:42	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 22:42	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 22:42	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 22:42	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.6	ug/kg	36.6	1	01/02/20 23:29	01/06/20 22:42	11096-82-5	
PCB, Total	<74.3	ug/kg	74.3	1	01/02/20 23:29	01/06/20 22:42	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	93	%	30-150	1	01/02/20 23:29	01/06/20 22:42	877-09-8	
Decachlorobiphenyl (S)	100	%	30-150	1	01/02/20 23:29	01/06/20 22:42	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	10.3	%	0.10	1		01/03/20 17:18		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-17 Lab ID: 70116954017 Collected: 12/31/19 08:36 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 22:56	12674-11-2	
PCB-1221 (Aroclor 1221)	<73.4	ug/kg	73.4	1	01/02/20 23:29	01/06/20 22:56	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 22:56	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 22:56	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 22:56	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 22:56	11097-69-1	
PCB-1260 (Aroclor 1260)	40.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 22:56	11096-82-5	
PCB, Total	<73.4	ug/kg	73.4	1	01/02/20 23:29	01/06/20 22:56	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	68	%	30-150	1	01/02/20 23:29	01/06/20 22:56	877-09-8	
Decachlorobiphenyl (S)	79	%	30-150	1	01/02/20 23:29	01/06/20 22:56	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	10.6	%	0.10	1		01/03/20 17:20		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-18 **Lab ID: 70116954018** Collected: 12/31/19 08:37 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 23:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<73.5	ug/kg	73.5	1	01/02/20 23:29	01/06/20 23:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 23:09	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 23:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 23:09	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 23:09	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.2	ug/kg	36.2	1	01/02/20 23:29	01/06/20 23:09	11096-82-5	
PCB, Total	<73.5	ug/kg	73.5	1	01/02/20 23:29	01/06/20 23:09	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	73	%	30-150	1	01/02/20 23:29	01/06/20 23:09	877-09-8	
Decachlorobiphenyl (S)	92	%	30-150	1	01/02/20 23:29	01/06/20 23:09	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	11.2	%	0.10	1		01/03/20 17:22		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-19 Lab ID: 70116954019 Collected: 12/31/19 08:38 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.7	ug/kg	37.7	1	01/04/20 01:10	01/08/20 07:07	12674-11-2	
PCB-1221 (Aroclor 1221)	<76.5	ug/kg	76.5	1	01/04/20 01:10	01/08/20 07:07	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.7	ug/kg	37.7	1	01/04/20 01:10	01/08/20 07:07	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.7	ug/kg	37.7	1	01/04/20 01:10	01/08/20 07:07	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.7	ug/kg	37.7	1	01/04/20 01:10	01/08/20 07:07	12672-29-6	
PCB-1254 (Aroclor 1254)	<37.7	ug/kg	37.7	1	01/04/20 01:10	01/08/20 07:07	11097-69-1	
PCB-1260 (Aroclor 1260)	41.9	ug/kg	37.7	1	01/04/20 01:10	01/08/20 07:07	11096-82-5	
PCB, Total	<76.5	ug/kg	76.5	1	01/04/20 01:10	01/08/20 07:07	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	71	%	30-150	1	01/04/20 01:10	01/08/20 07:07	877-09-8	
Decachlorobiphenyl (S)	83	%	30-150	1	01/04/20 01:10	01/08/20 07:07	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	13.1	%	0.10	1		01/03/20 17:23		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-20 Lab ID: 70116954020 Collected: 12/31/19 08:49 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 07:48	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.6	ug/kg	70.6	1	01/04/20 01:10	01/08/20 07:48	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 07:48	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 07:48	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 07:48	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 07:48	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 07:48	11096-82-5	
PCB, Total	<70.6	ug/kg	70.6	1	01/04/20 01:10	01/08/20 07:48	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	89	%	30-150	1	01/04/20 01:10	01/08/20 07:48	877-09-8	
Decachlorobiphenyl (S)	104	%	30-150	1	01/04/20 01:10	01/08/20 07:48	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	7.1	%	0.10	1		01/03/20 17:25		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-21 **Lab ID: 70116954021** Collected: 12/31/19 08:52 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.9	ug/kg	34.9	1	01/04/20 01:10	01/08/20 08:01	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.8	ug/kg	70.8	1	01/04/20 01:10	01/08/20 08:01	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.9	ug/kg	34.9	1	01/04/20 01:10	01/08/20 08:01	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.9	ug/kg	34.9	1	01/04/20 01:10	01/08/20 08:01	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.9	ug/kg	34.9	1	01/04/20 01:10	01/08/20 08:01	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.9	ug/kg	34.9	1	01/04/20 01:10	01/08/20 08:01	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.9	ug/kg	34.9	1	01/04/20 01:10	01/08/20 08:01	11096-82-5	
PCB, Total	<70.8	ug/kg	70.8	1	01/04/20 01:10	01/08/20 08:01	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	94	%	30-150	1	01/04/20 01:10	01/08/20 08:01	877-09-8	
Decachlorobiphenyl (S)	102	%	30-150	1	01/04/20 01:10	01/08/20 08:01	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	7.7	%	0.10	1		01/03/20 17:26		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-22 Lab ID: 70116954022 Collected: 12/31/19 08:55 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:15	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.7	ug/kg	70.7	1	01/04/20 01:10	01/08/20 08:15	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:15	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:15	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:15	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:15	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:15	11096-82-5	
PCB, Total	<70.7	ug/kg	70.7	1	01/04/20 01:10	01/08/20 08:15	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	98	%	30-150	1	01/04/20 01:10	01/08/20 08:15	877-09-8	
Decachlorobiphenyl (S)	107	%	30-150	1	01/04/20 01:10	01/08/20 08:15	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	7.9	%	0.10	1		01/03/20 17:27		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-23 Lab ID: 70116954023 Collected: 12/31/19 08:53 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.8	ug/kg	34.8	1	01/08/20 22:35	01/10/20 20:58	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.7	ug/kg	70.7	1	01/08/20 22:35	01/10/20 20:58	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.8	ug/kg	34.8	1	01/08/20 22:35	01/10/20 20:58	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.8	ug/kg	34.8	1	01/08/20 22:35	01/10/20 20:58	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.8	ug/kg	34.8	1	01/08/20 22:35	01/10/20 20:58	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.8	ug/kg	34.8	1	01/08/20 22:35	01/10/20 20:58	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.8	ug/kg	34.8	1	01/08/20 22:35	01/10/20 20:58	11096-82-5	
PCB, Total	<70.7	ug/kg	70.7	1	01/08/20 22:35	01/10/20 20:58	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	78	%	30-150	1	01/08/20 22:35	01/10/20 20:58	877-09-8	
Decachlorobiphenyl (S)	93	%	30-150	1	01/08/20 22:35	01/10/20 20:58	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	6.7	%	0.10	1		01/03/20 17:29		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-24 **Lab ID: 70116954024** Collected: 12/31/19 08:53 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 08:42	12674-11-2	
PCB-1221 (Aroclor 1221)	<71.0	ug/kg	71.0	1	01/04/20 01:10	01/08/20 08:42	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 08:42	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 08:42	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 08:42	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 08:42	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 08:42	11096-82-5	
PCB, Total	<71.0	ug/kg	71.0	1	01/04/20 01:10	01/08/20 08:42	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	89	%	30-150	1	01/04/20 01:10	01/08/20 08:42	877-09-8	
Decachlorobiphenyl (S)	99	%	30-150	1	01/04/20 01:10	01/08/20 08:42	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	6.5	%	0.10	1		01/03/20 17:30		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-25 Lab ID: 70116954025 Collected: 12/31/19 08:54 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:56	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.6	ug/kg	70.6	1	01/04/20 01:10	01/08/20 08:56	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:56	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:56	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:56	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:56	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 08:56	11096-82-5	
PCB, Total	<70.6	ug/kg	70.6	1	01/04/20 01:10	01/08/20 08:56	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	92	%	30-150	1	01/04/20 01:10	01/08/20 08:56	877-09-8	
Decachlorobiphenyl (S)	109	%	30-150	1	01/04/20 01:10	01/08/20 08:56	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	6.8	%	0.10	1		01/03/20 17:31		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-26 **Lab ID: 70116954026** Collected: 12/31/19 08:55 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<71.0	ug/kg	71.0	1	01/04/20 01:10	01/08/20 09:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:09	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:09	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:09	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:09	11096-82-5	
PCB, Total	<71.0	ug/kg	71.0	1	01/04/20 01:10	01/08/20 09:09	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	106	%	30-150	1	01/04/20 01:10	01/08/20 09:09	877-09-8	
Decachlorobiphenyl (S)	115	%	30-150	1	01/04/20 01:10	01/08/20 09:09	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.8	%	0.10	1		01/03/20 17:32		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-27 **Lab ID: 70116954027** Collected: 12/31/19 08:55 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:23	12674-11-2	
PCB-1221 (Aroclor 1221)	<71.1	ug/kg	71.1	1	01/04/20 01:10	01/08/20 09:23	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:23	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:23	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:23	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:23	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.0	ug/kg	35.0	1	01/04/20 01:10	01/08/20 09:23	11096-82-5	
PCB, Total	<71.1	ug/kg	71.1	1	01/04/20 01:10	01/08/20 09:23	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	86	%	30-150	1	01/04/20 01:10	01/08/20 09:23	877-09-8	
Decachlorobiphenyl (S)	113	%	30-150	1	01/04/20 01:10	01/08/20 09:23	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	6.3	%	0.10	1		01/03/20 17:33		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-28 **Lab ID: 70116954028** Collected: 12/31/19 08:57 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.2	ug/kg	34.2	1	01/04/20 01:10	01/08/20 09:37	12674-11-2	
PCB-1221 (Aroclor 1221)	<69.3	ug/kg	69.3	1	01/04/20 01:10	01/08/20 09:37	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.2	ug/kg	34.2	1	01/04/20 01:10	01/08/20 09:37	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.2	ug/kg	34.2	1	01/04/20 01:10	01/08/20 09:37	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.2	ug/kg	34.2	1	01/04/20 01:10	01/08/20 09:37	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.2	ug/kg	34.2	1	01/04/20 01:10	01/08/20 09:37	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.2	ug/kg	34.2	1	01/04/20 01:10	01/08/20 09:37	11096-82-5	
PCB, Total	<69.3	ug/kg	69.3	1	01/04/20 01:10	01/08/20 09:37	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	102	%	30-150	1	01/04/20 01:10	01/08/20 09:37	877-09-8	
Decachlorobiphenyl (S)	120	%	30-150	1	01/04/20 01:10	01/08/20 09:37	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	4.0	%	0.10	1		01/06/20 17:28		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-29 **Lab ID: 70116954029** Collected: 12/31/19 09:00 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.5	ug/kg	34.5	1	01/04/20 01:10	01/08/20 09:50	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.0	ug/kg	70.0	1	01/04/20 01:10	01/08/20 09:50	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.5	ug/kg	34.5	1	01/04/20 01:10	01/08/20 09:50	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.5	ug/kg	34.5	1	01/04/20 01:10	01/08/20 09:50	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.5	ug/kg	34.5	1	01/04/20 01:10	01/08/20 09:50	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.5	ug/kg	34.5	1	01/04/20 01:10	01/08/20 09:50	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.5	ug/kg	34.5	1	01/04/20 01:10	01/08/20 09:50	11096-82-5	
PCB, Total	<70.0	ug/kg	70.0	1	01/04/20 01:10	01/08/20 09:50	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	108	%	30-150	1	01/04/20 01:10	01/08/20 09:50	877-09-8	
Decachlorobiphenyl (S)	116	%	30-150	1	01/04/20 01:10	01/08/20 09:50	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.4	%	0.10	1		01/06/20 17:29		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-29B **Lab ID: 70116954030** Collected: 12/31/19 09:42 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<33.7	ug/kg	33.7	1	01/04/20 01:10	01/08/20 10:04	12674-11-2	
PCB-1221 (Aroclor 1221)	<68.3	ug/kg	68.3	1	01/04/20 01:10	01/08/20 10:04	11104-28-2	
PCB-1232 (Aroclor 1232)	<33.7	ug/kg	33.7	1	01/04/20 01:10	01/08/20 10:04	11141-16-5	
PCB-1242 (Aroclor 1242)	<33.7	ug/kg	33.7	1	01/04/20 01:10	01/08/20 10:04	53469-21-9	
PCB-1248 (Aroclor 1248)	<33.7	ug/kg	33.7	1	01/04/20 01:10	01/08/20 10:04	12672-29-6	
PCB-1254 (Aroclor 1254)	<33.7	ug/kg	33.7	1	01/04/20 01:10	01/08/20 10:04	11097-69-1	
PCB-1260 (Aroclor 1260)	<33.7	ug/kg	33.7	1	01/04/20 01:10	01/08/20 10:04	11096-82-5	
PCB, Total	<68.3	ug/kg	68.3	1	01/04/20 01:10	01/08/20 10:04	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	106	%	30-150	1	01/04/20 01:10	01/08/20 10:04	877-09-8	
Decachlorobiphenyl (S)	124	%	30-150	1	01/04/20 01:10	01/08/20 10:04	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	3.6	%	0.10	1		01/06/20 17:29		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-30 **Lab ID: 70116954031** Collected: 12/31/19 09:01 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:17	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.7	ug/kg	70.7	1	01/04/20 01:10	01/08/20 10:17	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:17	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:17	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:17	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:17	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:17	11096-82-5	
PCB, Total	<70.7	ug/kg	70.7	1	01/04/20 01:10	01/08/20 10:17	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	84	%	30-150	1	01/04/20 01:10	01/08/20 10:17	877-09-8	
Decachlorobiphenyl (S)	99	%	30-150	1	01/04/20 01:10	01/08/20 10:17	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.8	%	0.10	1		01/06/20 17:31		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-31 **Lab ID: 70116954032** Collected: 12/31/19 09:02 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.7	ug/kg	34.7	1	01/04/20 01:10	01/08/20 10:31	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.4	ug/kg	70.4	1	01/04/20 01:10	01/08/20 10:31	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.7	ug/kg	34.7	1	01/04/20 01:10	01/08/20 10:31	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.7	ug/kg	34.7	1	01/04/20 01:10	01/08/20 10:31	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.7	ug/kg	34.7	1	01/04/20 01:10	01/08/20 10:31	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.7	ug/kg	34.7	1	01/04/20 01:10	01/08/20 10:31	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.7	ug/kg	34.7	1	01/04/20 01:10	01/08/20 10:31	11096-82-5	
PCB, Total	<70.4	ug/kg	70.4	1	01/04/20 01:10	01/08/20 10:31	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	104	%	30-150	1	01/04/20 01:10	01/08/20 10:31	877-09-8	
Decachlorobiphenyl (S)	118	%	30-150	1	01/04/20 01:10	01/08/20 10:31	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.3	%	0.10	1		01/06/20 17:32		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-32 **Lab ID: 70116954033** Collected: 12/31/19 09:05 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:45	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.6	ug/kg	70.6	1	01/04/20 01:10	01/08/20 10:45	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:45	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:45	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:45	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:45	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 10:45	11096-82-5	
PCB, Total	<70.6	ug/kg	70.6	1	01/04/20 01:10	01/08/20 10:45	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	82	%	30-150	1	01/04/20 01:10	01/08/20 10:45	877-09-8	
Decachlorobiphenyl (S)	95	%	30-150	1	01/04/20 01:10	01/08/20 10:45	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.3	%	0.10	1		01/06/20 17:33		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-33 **Lab ID: 70116954034** Collected: 12/31/19 09:06 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.3	ug/kg	34.3	1	01/04/20 01:10	01/08/20 10:58	12674-11-2	
PCB-1221 (Aroclor 1221)	<69.6	ug/kg	69.6	1	01/04/20 01:10	01/08/20 10:58	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.3	ug/kg	34.3	1	01/04/20 01:10	01/08/20 10:58	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.3	ug/kg	34.3	1	01/04/20 01:10	01/08/20 10:58	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.3	ug/kg	34.3	1	01/04/20 01:10	01/08/20 10:58	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.3	ug/kg	34.3	1	01/04/20 01:10	01/08/20 10:58	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.3	ug/kg	34.3	1	01/04/20 01:10	01/08/20 10:58	11096-82-5	
PCB, Total	<69.6	ug/kg	69.6	1	01/04/20 01:10	01/08/20 10:58	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	96	%	30-150	1	01/04/20 01:10	01/08/20 10:58	877-09-8	
Decachlorobiphenyl (S)	110	%	30-150	1	01/04/20 01:10	01/08/20 10:58	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	4.4	%	0.10	1		01/06/20 17:34		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-34 **Lab ID: 70116954035** Collected: 12/31/19 09:10 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.2	ug/kg	36.2	1	01/04/20 01:10	01/08/20 11:12	12674-11-2	
PCB-1221 (Aroclor 1221)	<73.5	ug/kg	73.5	1	01/04/20 01:10	01/08/20 11:12	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.2	ug/kg	36.2	1	01/04/20 01:10	01/08/20 11:12	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.2	ug/kg	36.2	1	01/04/20 01:10	01/08/20 11:12	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.2	ug/kg	36.2	1	01/04/20 01:10	01/08/20 11:12	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.2	ug/kg	36.2	1	01/04/20 01:10	01/08/20 11:12	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.2	ug/kg	36.2	1	01/04/20 01:10	01/08/20 11:12	11096-82-5	
PCB, Total	<73.5	ug/kg	73.5	1	01/04/20 01:10	01/08/20 11:12	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	94	%	30-150	1	01/04/20 01:10	01/08/20 11:12	877-09-8	
Decachlorobiphenyl (S)	112	%	30-150	1	01/04/20 01:10	01/08/20 11:12	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	10.6	%	0.10	1		01/06/20 17:35		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-35 **Lab ID: 70116954036** Collected: 12/31/19 09:11 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.4	ug/kg	34.4	1	01/04/20 01:10	01/08/20 11:25	12674-11-2	
PCB-1221 (Aroclor 1221)	<69.7	ug/kg	69.7	1	01/04/20 01:10	01/08/20 11:25	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.4	ug/kg	34.4	1	01/04/20 01:10	01/08/20 11:25	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.4	ug/kg	34.4	1	01/04/20 01:10	01/08/20 11:25	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.4	ug/kg	34.4	1	01/04/20 01:10	01/08/20 11:25	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.4	ug/kg	34.4	1	01/04/20 01:10	01/08/20 11:25	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.4	ug/kg	34.4	1	01/04/20 01:10	01/08/20 11:25	11096-82-5	
PCB, Total	<69.7	ug/kg	69.7	1	01/04/20 01:10	01/08/20 11:25	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	92	%	30-150	1	01/04/20 01:10	01/08/20 11:25	877-09-8	
Decachlorobiphenyl (S)	109	%	30-150	1	01/04/20 01:10	01/08/20 11:25	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	6.0	%	0.10	1		01/06/20 17:36		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-36 Lab ID: 70116954037 Collected: 12/31/19 09:20 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.1	ug/kg	34.1	1	01/04/20 01:10	01/08/20 11:39	12674-11-2	
PCB-1221 (Aroclor 1221)	<69.3	ug/kg	69.3	1	01/04/20 01:10	01/08/20 11:39	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.1	ug/kg	34.1	1	01/04/20 01:10	01/08/20 11:39	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.1	ug/kg	34.1	1	01/04/20 01:10	01/08/20 11:39	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.1	ug/kg	34.1	1	01/04/20 01:10	01/08/20 11:39	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.1	ug/kg	34.1	1	01/04/20 01:10	01/08/20 11:39	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.1	ug/kg	34.1	1	01/04/20 01:10	01/08/20 11:39	11096-82-5	
PCB, Total	<69.3	ug/kg	69.3	1	01/04/20 01:10	01/08/20 11:39	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	104	%	30-150	1	01/04/20 01:10	01/08/20 11:39	877-09-8	
Decachlorobiphenyl (S)	120	%	30-150	1	01/04/20 01:10	01/08/20 11:39	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.6	%	0.10	1		01/06/20 17:37		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-37 **Lab ID: 70116954038** Collected: 12/31/19 09:22 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 11:53	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.6	ug/kg	70.6	1	01/04/20 01:10	01/08/20 11:53	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 11:53	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 11:53	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 11:53	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 11:53	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.8	ug/kg	34.8	1	01/04/20 01:10	01/08/20 11:53	11096-82-5	
PCB, Total	<70.6	ug/kg	70.6	1	01/04/20 01:10	01/08/20 11:53	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	95	%	30-150	1	01/04/20 01:10	01/08/20 11:53	877-09-8	
Decachlorobiphenyl (S)	107	%	30-150	1	01/04/20 01:10	01/08/20 11:53	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	7.9	%	0.10	1		01/06/20 17:38		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-38 **Lab ID: 70116954039** Collected: 12/31/19 09:25 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 02:07	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.3	ug/kg	70.3	1	01/09/20 18:13	01/14/20 02:07	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 02:07	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 02:07	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 02:07	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 02:07	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 02:07	11096-82-5	
PCB, Total	<70.3	ug/kg	70.3	1	01/09/20 18:13	01/14/20 02:07	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	88	%	30-150	1	01/09/20 18:13	01/14/20 02:07	877-09-8	
Decachlorobiphenyl (S)	93	%	30-150	1	01/09/20 18:13	01/14/20 02:07	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.6	%	0.10	1		01/07/20 19:26		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-39 **Lab ID: 70116954040** Collected: 12/31/19 09:27 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.5	ug/kg	35.5	1	01/09/20 18:13	01/14/20 02:48	12674-11-2	
PCB-1221 (Aroclor 1221)	<72.0	ug/kg	72.0	1	01/09/20 18:13	01/14/20 02:48	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.5	ug/kg	35.5	1	01/09/20 18:13	01/14/20 02:48	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.5	ug/kg	35.5	1	01/09/20 18:13	01/14/20 02:48	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.5	ug/kg	35.5	1	01/09/20 18:13	01/14/20 02:48	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.5	ug/kg	35.5	1	01/09/20 18:13	01/14/20 02:48	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.5	ug/kg	35.5	1	01/09/20 18:13	01/14/20 02:48	11096-82-5	
PCB, Total	<72.0	ug/kg	72.0	1	01/09/20 18:13	01/14/20 02:48	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	98	%	30-150	1	01/09/20 18:13	01/14/20 02:48	877-09-8	
Decachlorobiphenyl (S)	97	%	30-150	1	01/09/20 18:13	01/14/20 02:48	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	8.7	%	0.10	1		01/07/20 19:27		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-40 Lab ID: 70116954041 Collected: 12/31/19 09:30 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:01	12674-11-2	
PCB-1221 (Aroclor 1221)	<73.1	ug/kg	73.1	1	01/09/20 18:13	01/14/20 03:01	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:01	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:01	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:01	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:01	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:01	11096-82-5	
PCB, Total	<73.1	ug/kg	73.1	1	01/09/20 18:13	01/14/20 03:01	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	101	%	30-150	1	01/09/20 18:13	01/14/20 03:01	877-09-8	
Decachlorobiphenyl (S)	96	%	30-150	1	01/09/20 18:13	01/14/20 03:01	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	8.3	%	0.10	1		01/07/20 19:28		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-41 **Lab ID: 70116954042** Collected: 12/31/19 09:32 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:15	12674-11-2	
PCB-1221 (Aroclor 1221)	<73.2	ug/kg	73.2	1	01/09/20 18:13	01/14/20 03:15	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:15	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:15	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:15	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:15	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.0	ug/kg	36.0	1	01/09/20 18:13	01/14/20 03:15	11096-82-5	
PCB, Total	<73.2	ug/kg	73.2	1	01/09/20 18:13	01/14/20 03:15	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	83	%	30-150	1	01/09/20 18:13	01/14/20 03:15	877-09-8	
Decachlorobiphenyl (S)	91	%	30-150	1	01/09/20 18:13	01/14/20 03:15	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	10.6	%	0.10	1		01/07/20 19:29		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-42 Lab ID: 70116954043 Collected: 12/31/19 09:32 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.5	ug/kg	34.5	1	01/09/20 18:13	01/14/20 03:28	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.0	ug/kg	70.0	1	01/09/20 18:13	01/14/20 03:28	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.5	ug/kg	34.5	1	01/09/20 18:13	01/14/20 03:28	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.5	ug/kg	34.5	1	01/09/20 18:13	01/14/20 03:28	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.5	ug/kg	34.5	1	01/09/20 18:13	01/14/20 03:28	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.5	ug/kg	34.5	1	01/09/20 18:13	01/14/20 03:28	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.5	ug/kg	34.5	1	01/09/20 18:13	01/14/20 03:28	11096-82-5	
PCB, Total	<70.0	ug/kg	70.0	1	01/09/20 18:13	01/14/20 03:28	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	94	%	30-150	1	01/09/20 18:13	01/14/20 03:28	877-09-8	
Decachlorobiphenyl (S)	103	%	30-150	1	01/09/20 18:13	01/14/20 03:28	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.6	%	0.10	1		01/07/20 19:29		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-43 **Lab ID: 70116954044** Collected: 12/31/19 09:34 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<33.8	ug/kg	33.8	1	01/09/20 18:13	01/14/20 03:42	12674-11-2	
PCB-1221 (Aroclor 1221)	<68.7	ug/kg	68.7	1	01/09/20 18:13	01/14/20 03:42	11104-28-2	
PCB-1232 (Aroclor 1232)	<33.8	ug/kg	33.8	1	01/09/20 18:13	01/14/20 03:42	11141-16-5	
PCB-1242 (Aroclor 1242)	<33.8	ug/kg	33.8	1	01/09/20 18:13	01/14/20 03:42	53469-21-9	
PCB-1248 (Aroclor 1248)	<33.8	ug/kg	33.8	1	01/09/20 18:13	01/14/20 03:42	12672-29-6	
PCB-1254 (Aroclor 1254)	<33.8	ug/kg	33.8	1	01/09/20 18:13	01/14/20 03:42	11097-69-1	
PCB-1260 (Aroclor 1260)	<33.8	ug/kg	33.8	1	01/09/20 18:13	01/14/20 03:42	11096-82-5	
PCB, Total	<68.7	ug/kg	68.7	1	01/09/20 18:13	01/14/20 03:42	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	93	%	30-150	1	01/09/20 18:13	01/14/20 03:42	877-09-8	
Decachlorobiphenyl (S)	105	%	30-150	1	01/09/20 18:13	01/14/20 03:42	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	4.0	%	0.10	1		01/07/20 19:30		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: **SS-43B** Lab ID: **70116954045** Collected: 12/31/19 09:53 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 03:56	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.2	ug/kg	70.2	1	01/09/20 18:13	01/14/20 03:56	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 03:56	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 03:56	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 03:56	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 03:56	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.6	ug/kg	34.6	1	01/09/20 18:13	01/14/20 03:56	11096-82-5	
PCB, Total	<70.2	ug/kg	70.2	1	01/09/20 18:13	01/14/20 03:56	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	90	%	30-150	1	01/09/20 18:13	01/14/20 03:56	877-09-8	
Decachlorobiphenyl (S)	105	%	30-150	1	01/09/20 18:13	01/14/20 03:56	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	4.7	%	0.10	1		01/07/20 19:31		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-44 Lab ID: 70116954046 Collected: 12/31/19 09:34 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.3	ug/kg	34.3	1	01/09/20 18:13	01/14/20 04:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<69.6	ug/kg	69.6	1	01/09/20 18:13	01/14/20 04:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.3	ug/kg	34.3	1	01/09/20 18:13	01/14/20 04:09	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.3	ug/kg	34.3	1	01/09/20 18:13	01/14/20 04:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.3	ug/kg	34.3	1	01/09/20 18:13	01/14/20 04:09	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.3	ug/kg	34.3	1	01/09/20 18:13	01/14/20 04:09	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.3	ug/kg	34.3	1	01/09/20 18:13	01/14/20 04:09	11096-82-5	
PCB, Total	<69.6	ug/kg	69.6	1	01/09/20 18:13	01/14/20 04:09	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	88	%	30-150	1	01/09/20 18:13	01/14/20 04:09	877-09-8	
Decachlorobiphenyl (S)	102	%	30-150	1	01/09/20 18:13	01/14/20 04:09	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	6.0	%	0.10	1		01/07/20 19:32		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-45 Lab ID: 70116954047 Collected: 12/31/19 09:34 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.4	ug/kg	34.4	1	01/09/20 18:13	01/14/20 04:23	12674-11-2	
PCB-1221 (Aroclor 1221)	<69.8	ug/kg	69.8	1	01/09/20 18:13	01/14/20 04:23	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.4	ug/kg	34.4	1	01/09/20 18:13	01/14/20 04:23	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.4	ug/kg	34.4	1	01/09/20 18:13	01/14/20 04:23	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.4	ug/kg	34.4	1	01/09/20 18:13	01/14/20 04:23	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.4	ug/kg	34.4	1	01/09/20 18:13	01/14/20 04:23	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.4	ug/kg	34.4	1	01/09/20 18:13	01/14/20 04:23	11096-82-5	
PCB, Total	<69.8	ug/kg	69.8	1	01/09/20 18:13	01/14/20 04:23	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	83	%	30-150	1	01/09/20 18:13	01/14/20 04:23	877-09-8	
Decachlorobiphenyl (S)	106	%	30-150	1	01/09/20 18:13	01/14/20 04:23	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	4.3	%	0.10	1		01/07/20 19:32		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-46 Lab ID: 70116954048 Collected: 12/31/19 09:34 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.7	ug/kg	34.7	1	01/09/20 18:13	01/14/20 04:36	12674-11-2	
PCB-1221 (Aroclor 1221)	<70.4	ug/kg	70.4	1	01/09/20 18:13	01/14/20 04:36	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.7	ug/kg	34.7	1	01/09/20 18:13	01/14/20 04:36	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.7	ug/kg	34.7	1	01/09/20 18:13	01/14/20 04:36	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.7	ug/kg	34.7	1	01/09/20 18:13	01/14/20 04:36	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.7	ug/kg	34.7	1	01/09/20 18:13	01/14/20 04:36	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.7	ug/kg	34.7	1	01/09/20 18:13	01/14/20 04:36	11096-82-5	
PCB, Total	<70.4	ug/kg	70.4	1	01/09/20 18:13	01/14/20 04:36	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	90	%	30-150	1	01/09/20 18:13	01/14/20 04:36	877-09-8	
Decachlorobiphenyl (S)	106	%	30-150	1	01/09/20 18:13	01/14/20 04:36	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.0	%	0.10	1		01/07/20 19:33		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-47 **Lab ID: 70116954049** Collected: 12/31/19 09:35 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 04:50	12674-11-2	
PCB-1221 (Aroclor 1221)	<67.8	ug/kg	67.8	1	01/09/20 18:13	01/14/20 04:50	11104-28-2	
PCB-1232 (Aroclor 1232)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 04:50	11141-16-5	
PCB-1242 (Aroclor 1242)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 04:50	53469-21-9	
PCB-1248 (Aroclor 1248)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 04:50	12672-29-6	
PCB-1254 (Aroclor 1254)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 04:50	11097-69-1	
PCB-1260 (Aroclor 1260)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 04:50	11096-82-5	
PCB, Total	<67.8	ug/kg	67.8	1	01/09/20 18:13	01/14/20 04:50	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	82	%	30-150	1	01/09/20 18:13	01/14/20 04:50	877-09-8	
Decachlorobiphenyl (S)	98	%	30-150	1	01/09/20 18:13	01/14/20 04:50	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	4.4	%	0.10	1		01/07/20 19:34		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-48 **Lab ID: 70116954050** Collected: 12/31/19 09:57 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<33.3	ug/kg	33.3	1	01/09/20 18:13	01/14/20 05:03	12674-11-2	
PCB-1221 (Aroclor 1221)	<67.7	ug/kg	67.7	1	01/09/20 18:13	01/14/20 05:03	11104-28-2	
PCB-1232 (Aroclor 1232)	<33.3	ug/kg	33.3	1	01/09/20 18:13	01/14/20 05:03	11141-16-5	
PCB-1242 (Aroclor 1242)	<33.3	ug/kg	33.3	1	01/09/20 18:13	01/14/20 05:03	53469-21-9	
PCB-1248 (Aroclor 1248)	<33.3	ug/kg	33.3	1	01/09/20 18:13	01/14/20 05:03	12672-29-6	
PCB-1254 (Aroclor 1254)	<33.3	ug/kg	33.3	1	01/09/20 18:13	01/14/20 05:03	11097-69-1	
PCB-1260 (Aroclor 1260)	<33.3	ug/kg	33.3	1	01/09/20 18:13	01/14/20 05:03	11096-82-5	
PCB, Total	<67.7	ug/kg	67.7	1	01/09/20 18:13	01/14/20 05:03	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	86	%	30-150	1	01/09/20 18:13	01/14/20 05:03	877-09-8	
Decachlorobiphenyl (S)	101	%	30-150	1	01/09/20 18:13	01/14/20 05:03	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	3.7	%	0.10	1		01/07/20 19:35		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-49 **Lab ID: 70116954051** Collected: 12/31/19 09:56 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.0	ug/kg	34.0	1	01/09/20 18:13	01/14/20 05:17	12674-11-2	
PCB-1221 (Aroclor 1221)	<68.9	ug/kg	68.9	1	01/09/20 18:13	01/14/20 05:17	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.0	ug/kg	34.0	1	01/09/20 18:13	01/14/20 05:17	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.0	ug/kg	34.0	1	01/09/20 18:13	01/14/20 05:17	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.0	ug/kg	34.0	1	01/09/20 18:13	01/14/20 05:17	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.0	ug/kg	34.0	1	01/09/20 18:13	01/14/20 05:17	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.0	ug/kg	34.0	1	01/09/20 18:13	01/14/20 05:17	11096-82-5	
PCB, Total	<68.9	ug/kg	68.9	1	01/09/20 18:13	01/14/20 05:17	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	87	%	30-150	1	01/09/20 18:13	01/14/20 05:17	877-09-8	
Decachlorobiphenyl (S)	105	%	30-150	1	01/09/20 18:13	01/14/20 05:17	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	3.5	%	0.10	1		01/07/20 19:36		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-50 **Lab ID: 70116954052** Collected: 12/31/19 09:55 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 05:30	12674-11-2	
PCB-1221 (Aroclor 1221)	<67.7	ug/kg	67.7	1	01/09/20 18:13	01/14/20 05:30	11104-28-2	
PCB-1232 (Aroclor 1232)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 05:30	11141-16-5	
PCB-1242 (Aroclor 1242)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 05:30	53469-21-9	
PCB-1248 (Aroclor 1248)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 05:30	12672-29-6	
PCB-1254 (Aroclor 1254)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 05:30	11097-69-1	
PCB-1260 (Aroclor 1260)	<33.4	ug/kg	33.4	1	01/09/20 18:13	01/14/20 05:30	11096-82-5	
PCB, Total	<67.7	ug/kg	67.7	1	01/09/20 18:13	01/14/20 05:30	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	94	%	30-150	1	01/09/20 18:13	01/14/20 05:30	877-09-8	
Decachlorobiphenyl (S)	103	%	30-150	1	01/09/20 18:13	01/14/20 05:30	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	3.1	%	0.10	1		01/07/20 19:37		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-51 **Lab ID: 70116954053** Collected: 12/31/19 10:49 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 21:39	12674-11-2	
PCB-1221 (Aroclor 1221)	<80.4	ug/kg	80.4	1	01/08/20 22:35	01/10/20 21:39	11104-28-2	
PCB-1232 (Aroclor 1232)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 21:39	11141-16-5	
PCB-1242 (Aroclor 1242)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 21:39	53469-21-9	
PCB-1248 (Aroclor 1248)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 21:39	12672-29-6	
PCB-1254 (Aroclor 1254)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 21:39	11097-69-1	
PCB-1260 (Aroclor 1260)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 21:39	11096-82-5	
PCB, Total	<80.4	ug/kg	80.4	1	01/08/20 22:35	01/10/20 21:39	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	49	%	30-150	1	01/08/20 22:35	01/10/20 21:39	877-09-8	
Decachlorobiphenyl (S)	52	%	30-150	1	01/08/20 22:35	01/10/20 21:39	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	16.7	%	0.10	1		01/07/20 19:38		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-52 **Lab ID: 70116954054** Collected: 12/31/19 10:50 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.1	ug/kg	36.1	1	01/08/20 22:35	01/10/20 21:52	12674-11-2	
PCB-1221 (Aroclor 1221)	<73.3	ug/kg	73.3	1	01/08/20 22:35	01/10/20 21:52	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.1	ug/kg	36.1	1	01/08/20 22:35	01/10/20 21:52	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.1	ug/kg	36.1	1	01/08/20 22:35	01/10/20 21:52	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.1	ug/kg	36.1	1	01/08/20 22:35	01/10/20 21:52	12672-29-6	
PCB-1254 (Aroclor 1254)	57.6	ug/kg	36.1	1	01/08/20 22:35	01/10/20 21:52	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.1	ug/kg	36.1	1	01/08/20 22:35	01/10/20 21:52	11096-82-5	
PCB, Total	<73.3	ug/kg	73.3	1	01/08/20 22:35	01/10/20 21:52	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	75	%	30-150	1	01/08/20 22:35	01/10/20 21:52	877-09-8	
Decachlorobiphenyl (S)	87	%	30-150	1	01/08/20 22:35	01/10/20 21:52	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	10.0	%	0.10	1		01/08/20 18:08		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-53 **Lab ID: 70116954055** Collected: 12/31/19 10:50 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<34.1	ug/kg	34.1	1	01/08/20 22:35	01/10/20 22:06	12674-11-2	
PCB-1221 (Aroclor 1221)	<69.3	ug/kg	69.3	1	01/08/20 22:35	01/10/20 22:06	11104-28-2	
PCB-1232 (Aroclor 1232)	<34.1	ug/kg	34.1	1	01/08/20 22:35	01/10/20 22:06	11141-16-5	
PCB-1242 (Aroclor 1242)	<34.1	ug/kg	34.1	1	01/08/20 22:35	01/10/20 22:06	53469-21-9	
PCB-1248 (Aroclor 1248)	<34.1	ug/kg	34.1	1	01/08/20 22:35	01/10/20 22:06	12672-29-6	
PCB-1254 (Aroclor 1254)	<34.1	ug/kg	34.1	1	01/08/20 22:35	01/10/20 22:06	11097-69-1	
PCB-1260 (Aroclor 1260)	<34.1	ug/kg	34.1	1	01/08/20 22:35	01/10/20 22:06	11096-82-5	
PCB, Total	<69.3	ug/kg	69.3	1	01/08/20 22:35	01/10/20 22:06	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	72	%	30-150	1	01/08/20 22:35	01/10/20 22:06	877-09-8	
Decachlorobiphenyl (S)	84	%	30-150	1	01/08/20 22:35	01/10/20 22:06	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	5.7	%	0.10	1		01/08/20 18:10		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-54 **Lab ID: 70116954056** Collected: 12/31/19 10:52 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.8	ug/kg	37.8	1	01/08/20 22:35	01/10/20 22:19	12674-11-2	
PCB-1221 (Aroclor 1221)	<76.7	ug/kg	76.7	1	01/08/20 22:35	01/10/20 22:19	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.8	ug/kg	37.8	1	01/08/20 22:35	01/10/20 22:19	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.8	ug/kg	37.8	1	01/08/20 22:35	01/10/20 22:19	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.8	ug/kg	37.8	1	01/08/20 22:35	01/10/20 22:19	12672-29-6	
PCB-1254 (Aroclor 1254)	45.0	ug/kg	37.8	1	01/08/20 22:35	01/10/20 22:19	11097-69-1	
PCB-1260 (Aroclor 1260)	<37.8	ug/kg	37.8	1	01/08/20 22:35	01/10/20 22:19	11096-82-5	
PCB, Total	<76.7	ug/kg	76.7	1	01/08/20 22:35	01/10/20 22:19	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	44	%	30-150	1	01/08/20 22:35	01/10/20 22:19	877-09-8	
Decachlorobiphenyl (S)	44	%	30-150	1	01/08/20 22:35	01/10/20 22:19	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	13.5	%	0.10	1		01/08/20 18:13		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-55 **Lab ID: 70116954057** Collected: 12/31/19 10:52 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<38.3	ug/kg	38.3	1	01/08/20 22:35	01/10/20 22:33	12674-11-2	
PCB-1221 (Aroclor 1221)	<77.7	ug/kg	77.7	1	01/08/20 22:35	01/10/20 22:33	11104-28-2	
PCB-1232 (Aroclor 1232)	<38.3	ug/kg	38.3	1	01/08/20 22:35	01/10/20 22:33	11141-16-5	
PCB-1242 (Aroclor 1242)	<38.3	ug/kg	38.3	1	01/08/20 22:35	01/10/20 22:33	53469-21-9	
PCB-1248 (Aroclor 1248)	<38.3	ug/kg	38.3	1	01/08/20 22:35	01/10/20 22:33	12672-29-6	
PCB-1254 (Aroclor 1254)	232	ug/kg	38.3	1	01/08/20 22:35	01/10/20 22:33	11097-69-1	
PCB-1260 (Aroclor 1260)	<38.3	ug/kg	38.3	1	01/08/20 22:35	01/10/20 22:33	11096-82-5	
PCB, Total	232	ug/kg	77.7	1	01/08/20 22:35	01/10/20 22:33	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	51	%	30-150	1	01/08/20 22:35	01/10/20 22:33	877-09-8	
Decachlorobiphenyl (S)	46	%	30-150	1	01/08/20 22:35	01/10/20 22:33	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	14.0	%	0.10	1		01/08/20 18:15		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-56 **Lab ID: 70116954058** Collected: 12/31/19 10:53 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 22:46	12674-11-2	
PCB-1221 (Aroclor 1221)	<80.4	ug/kg	80.4	1	01/08/20 22:35	01/10/20 22:46	11104-28-2	
PCB-1232 (Aroclor 1232)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 22:46	11141-16-5	
PCB-1242 (Aroclor 1242)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 22:46	53469-21-9	
PCB-1248 (Aroclor 1248)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 22:46	12672-29-6	
PCB-1254 (Aroclor 1254)	56.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 22:46	11097-69-1	
PCB-1260 (Aroclor 1260)	<39.6	ug/kg	39.6	1	01/08/20 22:35	01/10/20 22:46	11096-82-5	
PCB, Total	<80.4	ug/kg	80.4	1	01/08/20 22:35	01/10/20 22:46	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	69	%	30-150	1	01/08/20 22:35	01/10/20 22:46	877-09-8	
Decachlorobiphenyl (S)	35	%	30-150	1	01/08/20 22:35	01/10/20 22:46	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	19.3	%	0.10	1		01/08/20 18:17		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-57 Lab ID: 70116954059 Collected: 12/31/19 10:56 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.4	ug/kg	35.4	1	01/08/20 22:35	01/10/20 23:00	12674-11-2	
PCB-1221 (Aroclor 1221)	<71.9	ug/kg	71.9	1	01/08/20 22:35	01/10/20 23:00	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.4	ug/kg	35.4	1	01/08/20 22:35	01/10/20 23:00	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.4	ug/kg	35.4	1	01/08/20 22:35	01/10/20 23:00	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.4	ug/kg	35.4	1	01/08/20 22:35	01/10/20 23:00	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.4	ug/kg	35.4	1	01/08/20 22:35	01/10/20 23:00	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.4	ug/kg	35.4	1	01/08/20 22:35	01/10/20 23:00	11096-82-5	
PCB, Total	<71.9	ug/kg	71.9	1	01/08/20 22:35	01/10/20 23:00	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	79	%	30-150	1	01/08/20 22:35	01/10/20 23:00	877-09-8	
Decachlorobiphenyl (S)	87	%	30-150	1	01/08/20 22:35	01/10/20 23:00	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	9.5	%	0.10	1		01/08/20 18:18		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-58 **Lab ID: 70116954060** Collected: 12/31/19 10:56 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<41.3	ug/kg	41.3	1	01/08/20 22:35	01/15/20 22:12	12674-11-2	
PCB-1221 (Aroclor 1221)	<83.8	ug/kg	83.8	1	01/08/20 22:35	01/15/20 22:12	11104-28-2	
PCB-1232 (Aroclor 1232)	<41.3	ug/kg	41.3	1	01/08/20 22:35	01/15/20 22:12	11141-16-5	
PCB-1242 (Aroclor 1242)	<41.3	ug/kg	41.3	1	01/08/20 22:35	01/15/20 22:12	53469-21-9	
PCB-1248 (Aroclor 1248)	<41.3	ug/kg	41.3	1	01/08/20 22:35	01/15/20 22:12	12672-29-6	
PCB-1254 (Aroclor 1254)	<41.3	ug/kg	41.3	1	01/08/20 22:35	01/15/20 22:12	11097-69-1	
PCB-1260 (Aroclor 1260)	<41.3	ug/kg	41.3	1	01/08/20 22:35	01/15/20 22:12	11096-82-5	
PCB, Total	<83.8	ug/kg	83.8	1	01/08/20 22:35	01/15/20 22:12	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	56	%	30-150	1	01/08/20 22:35	01/15/20 22:12	877-09-8	
Decachlorobiphenyl (S)	41	%	30-150	1	01/08/20 22:35	01/15/20 22:12	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	22.3	%	0.10	1		01/08/20 18:20		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-59 **Lab ID: 70116954061** Collected: 12/31/19 10:55 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.6	ug/kg	36.6	1	01/08/20 22:35	01/10/20 23:27	12674-11-2	
PCB-1221 (Aroclor 1221)	<74.4	ug/kg	74.4	1	01/08/20 22:35	01/10/20 23:27	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.6	ug/kg	36.6	1	01/08/20 22:35	01/10/20 23:27	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.6	ug/kg	36.6	1	01/08/20 22:35	01/10/20 23:27	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.6	ug/kg	36.6	1	01/08/20 22:35	01/10/20 23:27	12672-29-6	
PCB-1254 (Aroclor 1254)	<36.6	ug/kg	36.6	1	01/08/20 22:35	01/10/20 23:27	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.6	ug/kg	36.6	1	01/08/20 22:35	01/10/20 23:27	11096-82-5	
PCB, Total	<74.4	ug/kg	74.4	1	01/08/20 22:35	01/10/20 23:27	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	67	%	30-150	1	01/08/20 22:35	01/10/20 23:27	877-09-8	
Decachlorobiphenyl (S)	64	%	30-150	1	01/08/20 22:35	01/10/20 23:27	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	12.8	%	0.10	1		01/08/20 19:48		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-60 **Lab ID: 70116954062** Collected: 12/31/19 11:19 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.5	ug/kg	37.5	1	01/08/20 22:35	01/10/20 23:40	12674-11-2	
PCB-1221 (Aroclor 1221)	<76.1	ug/kg	76.1	1	01/08/20 22:35	01/10/20 23:40	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.5	ug/kg	37.5	1	01/08/20 22:35	01/10/20 23:40	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.5	ug/kg	37.5	1	01/08/20 22:35	01/10/20 23:40	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.5	ug/kg	37.5	1	01/08/20 22:35	01/10/20 23:40	12672-29-6	
PCB-1254 (Aroclor 1254)	<37.5	ug/kg	37.5	1	01/08/20 22:35	01/10/20 23:40	11097-69-1	
PCB-1260 (Aroclor 1260)	<37.5	ug/kg	37.5	1	01/08/20 22:35	01/10/20 23:40	11096-82-5	
PCB, Total	<76.1	ug/kg	76.1	1	01/08/20 22:35	01/10/20 23:40	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	60	%	30-150	1	01/08/20 22:35	01/10/20 23:40	877-09-8	
Decachlorobiphenyl (S)	60	%	30-150	1	01/08/20 22:35	01/10/20 23:40	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	13.3	%	0.10	1		01/08/20 19:51		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-61 **Lab ID: 70116954063** Collected: 12/31/19 11:21 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.2	ug/kg	37.2	1	01/08/20 22:35	01/10/20 23:54	12674-11-2	
PCB-1221 (Aroclor 1221)	<75.5	ug/kg	75.5	1	01/08/20 22:35	01/10/20 23:54	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.2	ug/kg	37.2	1	01/08/20 22:35	01/10/20 23:54	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.2	ug/kg	37.2	1	01/08/20 22:35	01/10/20 23:54	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.2	ug/kg	37.2	1	01/08/20 22:35	01/10/20 23:54	12672-29-6	
PCB-1254 (Aroclor 1254)	<37.2	ug/kg	37.2	1	01/08/20 22:35	01/10/20 23:54	11097-69-1	
PCB-1260 (Aroclor 1260)	<37.2	ug/kg	37.2	1	01/08/20 22:35	01/10/20 23:54	11096-82-5	
PCB, Total	<75.5	ug/kg	75.5	1	01/08/20 22:35	01/10/20 23:54	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	47	%	30-150	1	01/08/20 22:35	01/10/20 23:54	877-09-8	
Decachlorobiphenyl (S)	45	%	30-150	1	01/08/20 22:35	01/10/20 23:54	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	14.1	%	0.10	1		01/08/20 19:52		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-62 Lab ID: 70116954064 Collected: 12/31/19 11:27 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<37.7	ug/kg	37.7	1	01/08/20 22:35	01/11/20 00:07	12674-11-2	
PCB-1221 (Aroclor 1221)	<76.6	ug/kg	76.6	1	01/08/20 22:35	01/11/20 00:07	11104-28-2	
PCB-1232 (Aroclor 1232)	<37.7	ug/kg	37.7	1	01/08/20 22:35	01/11/20 00:07	11141-16-5	
PCB-1242 (Aroclor 1242)	<37.7	ug/kg	37.7	1	01/08/20 22:35	01/11/20 00:07	53469-21-9	
PCB-1248 (Aroclor 1248)	<37.7	ug/kg	37.7	1	01/08/20 22:35	01/11/20 00:07	12672-29-6	
PCB-1254 (Aroclor 1254)	<37.7	ug/kg	37.7	1	01/08/20 22:35	01/11/20 00:07	11097-69-1	
PCB-1260 (Aroclor 1260)	<37.7	ug/kg	37.7	1	01/08/20 22:35	01/11/20 00:07	11096-82-5	
PCB, Total	<76.6	ug/kg	76.6	1	01/08/20 22:35	01/11/20 00:07	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	49	%	30-150	1	01/08/20 22:35	01/11/20 00:07	877-09-8	
Decachlorobiphenyl (S)	46	%	30-150	1	01/08/20 22:35	01/11/20 00:07	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	13.9	%	0.10	1		01/08/20 19:54		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-63 **Lab ID: 70116954065** Collected: 12/31/19 11:27 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 00:21	12674-11-2	
PCB-1221 (Aroclor 1221)	<72.6	ug/kg	72.6	1	01/08/20 22:35	01/11/20 00:21	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 00:21	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 00:21	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 00:21	12672-29-6	
PCB-1254 (Aroclor 1254)	102	ug/kg	35.8	1	01/08/20 22:35	01/11/20 00:21	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 00:21	11096-82-5	
PCB, Total	102	ug/kg	72.6	1	01/08/20 22:35	01/11/20 00:21	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	65	%	30-150	1	01/08/20 22:35	01/11/20 00:21	877-09-8	
Decachlorobiphenyl (S)	63	%	30-150	1	01/08/20 22:35	01/11/20 00:21	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	8.3	%	0.10	1		01/08/20 19:55		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-64 Lab ID: 70116954066 Collected: 12/31/19 11:30 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<36.8	ug/kg	36.8	1	01/08/20 22:35	01/11/20 00:35	12674-11-2	
PCB-1221 (Aroclor 1221)	<74.6	ug/kg	74.6	1	01/08/20 22:35	01/11/20 00:35	11104-28-2	
PCB-1232 (Aroclor 1232)	<36.8	ug/kg	36.8	1	01/08/20 22:35	01/11/20 00:35	11141-16-5	
PCB-1242 (Aroclor 1242)	<36.8	ug/kg	36.8	1	01/08/20 22:35	01/11/20 00:35	53469-21-9	
PCB-1248 (Aroclor 1248)	<36.8	ug/kg	36.8	1	01/08/20 22:35	01/11/20 00:35	12672-29-6	
PCB-1254 (Aroclor 1254)	164	ug/kg	36.8	1	01/08/20 22:35	01/11/20 00:35	11097-69-1	
PCB-1260 (Aroclor 1260)	<36.8	ug/kg	36.8	1	01/08/20 22:35	01/11/20 00:35	11096-82-5	
PCB, Total	164	ug/kg	74.6	1	01/08/20 22:35	01/11/20 00:35	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	83	%	30-150	1	01/08/20 22:35	01/11/20 00:35	877-09-8	
Decachlorobiphenyl (S)	69	%	30-150	1	01/08/20 22:35	01/11/20 00:35	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	12.8	%	0.10	1		01/08/20 19:56		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-65 **Lab ID: 70116954067** Collected: 12/31/19 11:36 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<41.2	ug/kg	41.2	1	01/08/20 22:35	01/11/20 00:48	12674-11-2	
PCB-1221 (Aroclor 1221)	<83.7	ug/kg	83.7	1	01/08/20 22:35	01/11/20 00:48	11104-28-2	
PCB-1232 (Aroclor 1232)	<41.2	ug/kg	41.2	1	01/08/20 22:35	01/11/20 00:48	11141-16-5	
PCB-1242 (Aroclor 1242)	<41.2	ug/kg	41.2	1	01/08/20 22:35	01/11/20 00:48	53469-21-9	
PCB-1248 (Aroclor 1248)	<41.2	ug/kg	41.2	1	01/08/20 22:35	01/11/20 00:48	12672-29-6	
PCB-1254 (Aroclor 1254)	41.5	ug/kg	41.2	1	01/08/20 22:35	01/11/20 00:48	11097-69-1	
PCB-1260 (Aroclor 1260)	<41.2	ug/kg	41.2	1	01/08/20 22:35	01/11/20 00:48	11096-82-5	
PCB, Total	<83.7	ug/kg	83.7	1	01/08/20 22:35	01/11/20 00:48	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	71	%	30-150	1	01/08/20 22:35	01/11/20 00:48	877-09-8	
Decachlorobiphenyl (S)	44	%	30-150	1	01/08/20 22:35	01/11/20 00:48	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	20.8	%	0.10	1		01/08/20 19:58		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-65B **Lab ID: 70116954068** Collected: 12/31/19 11:36 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 01:02	12674-11-2	
PCB-1221 (Aroclor 1221)	<72.7	ug/kg	72.7	1	01/08/20 22:35	01/11/20 01:02	11104-28-2	
PCB-1232 (Aroclor 1232)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 01:02	11141-16-5	
PCB-1242 (Aroclor 1242)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 01:02	53469-21-9	
PCB-1248 (Aroclor 1248)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 01:02	12672-29-6	
PCB-1254 (Aroclor 1254)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 01:02	11097-69-1	
PCB-1260 (Aroclor 1260)	<35.8	ug/kg	35.8	1	01/08/20 22:35	01/11/20 01:02	11096-82-5	
PCB, Total	<72.7	ug/kg	72.7	1	01/08/20 22:35	01/11/20 01:02	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	79	%	30-150	1	01/08/20 22:35	01/11/20 01:02	877-09-8	
Decachlorobiphenyl (S)	81	%	30-150	1	01/08/20 22:35	01/11/20 01:02	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	8.1	%	0.10	1		01/08/20 19:59		

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-66 **Lab ID: 70116954069** Collected: 12/31/19 11:47 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<43.4	ug/kg	43.4	1	01/08/20 22:35	01/11/20 01:15	12674-11-2	
PCB-1221 (Aroclor 1221)	<88.0	ug/kg	88.0	1	01/08/20 22:35	01/11/20 01:15	11104-28-2	
PCB-1232 (Aroclor 1232)	<43.4	ug/kg	43.4	1	01/08/20 22:35	01/11/20 01:15	11141-16-5	
PCB-1242 (Aroclor 1242)	<43.4	ug/kg	43.4	1	01/08/20 22:35	01/11/20 01:15	53469-21-9	
PCB-1248 (Aroclor 1248)	<43.4	ug/kg	43.4	1	01/08/20 22:35	01/11/20 01:15	12672-29-6	
PCB-1254 (Aroclor 1254)	<43.4	ug/kg	43.4	1	01/08/20 22:35	01/11/20 01:15	11097-69-1	
PCB-1260 (Aroclor 1260)	<43.4	ug/kg	43.4	1	01/08/20 22:35	01/11/20 01:15	11096-82-5	
PCB, Total	<88.0	ug/kg	88.0	1	01/08/20 22:35	01/11/20 01:15	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	75	%	30-150	1	01/08/20 22:35	01/11/20 01:15	877-09-8	
Decachlorobiphenyl (S)	76	%	30-150	1	01/08/20 22:35	01/11/20 01:15	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	24.6	%	0.10	1		01/08/20 19:59		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Sample: SS-67 Lab ID: 70116954070 Collected: 12/31/19 11:42 Received: 01/02/20 11:16 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<387	ug/kg	387	10	01/08/20 22:35	01/14/20 08:00	12674-11-2	
PCB-1221 (Aroclor 1221)	<785	ug/kg	785	10	01/08/20 22:35	01/14/20 08:00	11104-28-2	
PCB-1232 (Aroclor 1232)	<387	ug/kg	387	10	01/08/20 22:35	01/14/20 08:00	11141-16-5	
PCB-1242 (Aroclor 1242)	<387	ug/kg	387	10	01/08/20 22:35	01/14/20 08:00	53469-21-9	
PCB-1248 (Aroclor 1248)	<387	ug/kg	387	10	01/08/20 22:35	01/14/20 08:00	12672-29-6	
PCB-1254 (Aroclor 1254)	2360	ug/kg	387	10	01/08/20 22:35	01/14/20 08:00	11097-69-1	
PCB-1260 (Aroclor 1260)	<387	ug/kg	387	10	01/08/20 22:35	01/14/20 08:00	11096-82-5	
PCB, Total	2360	ug/kg	785	10	01/08/20 22:35	01/14/20 08:00	1336-36-3	
Surrogates								
Tetrachloro-m-xylene (S)	71	%	30-150	1	01/08/20 22:35	01/11/20 01:29	877-09-8	
Decachlorobiphenyl (S)	83	%	30-150	1	01/08/20 22:35	01/11/20 01:29	2051-24-3	
Percent Moisture Analytical Method: ASTM D2216-92M								
Percent Moisture	14.7	%	0.10	1		01/08/20 20:01		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

QC Batch:	144317	Analysis Method:	EPA 8082A
QC Batch Method:	EPA 3546	Analysis Description:	8082 GCS PCB
Associated Lab Samples:	70116954001, 70116954002, 70116954003, 70116954004, 70116954005, 70116954006, 70116954007, 70116954008, 70116954009, 70116954010, 70116954011, 70116954012, 70116954013, 70116954014, 70116954015, 70116954016, 70116954017, 70116954018		

METHOD BLANK: 691494

Matrix: Solid

Associated Lab Samples: 70116954001, 70116954002, 70116954003, 70116954004, 70116954005, 70116954006, 70116954007, 70116954008, 70116954009, 70116954010, 70116954011, 70116954012, 70116954013, 70116954014, 70116954015, 70116954016, 70116954017, 70116954018

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<33.0	33.0	01/06/20 17:57	
PCB-1221 (Aroclor 1221)	ug/kg	<67.0	67.0	01/06/20 17:57	
PCB-1232 (Aroclor 1232)	ug/kg	<33.0	33.0	01/06/20 17:57	
PCB-1242 (Aroclor 1242)	ug/kg	<33.0	33.0	01/06/20 17:57	
PCB-1248 (Aroclor 1248)	ug/kg	<33.0	33.0	01/06/20 17:57	
PCB-1254 (Aroclor 1254)	ug/kg	<33.0	33.0	01/06/20 17:57	
PCB-1260 (Aroclor 1260)	ug/kg	<33.0	33.0	01/06/20 17:57	
Decachlorobiphenyl (S)	%	87	30-150	01/06/20 17:57	
Tetrachloro-m-xylene (S)	%	80	30-150	01/06/20 17:57	

LABORATORY CONTROL SAMPLE: 691495

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	110	66	50-136	
PCB-1260 (Aroclor 1260)	ug/kg	167	136	82	45-154	
Decachlorobiphenyl (S)	%			100	30-150	
Tetrachloro-m-xylene (S)	%			77	30-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 691496

691497

Parameter	Units	70116954001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<33.3	171	173	123	138	72	80	28-173	11	
PCB-1221 (Aroclor 1221)	ug/kg	<67.5			<68.8	<69.4					
PCB-1232 (Aroclor 1232)	ug/kg	<33.3			<33.9	<34.2					
PCB-1242 (Aroclor 1242)	ug/kg	<33.3			<33.9	<34.2					
PCB-1248 (Aroclor 1248)	ug/kg	<33.3			<33.9	<34.2					
PCB-1254 (Aroclor 1254)	ug/kg	<33.3			<33.9	<34.2					
PCB-1260 (Aroclor 1260)	ug/kg	<33.3	171	173	163	181	96	105	43-138	10	
Decachlorobiphenyl (S)	%						92	106	30-150		
Tetrachloro-m-xylene (S)	%						79	90	30-150		

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

QC Batch:	144445	Analysis Method:	EPA 8082A
QC Batch Method:	EPA 3546	Analysis Description:	8082 GCS PCB
Associated Lab Samples:	70116954019, 70116954020, 70116954021, 70116954022, 70116954024, 70116954025, 70116954026, 70116954027, 70116954028, 70116954029, 70116954030, 70116954031, 70116954032, 70116954033, 70116954034, 70116954035, 70116954036, 70116954037, 70116954038		

METHOD BLANK: 692103

Matrix: Solid

Associated Lab Samples: 70116954019, 70116954020, 70116954021, 70116954022, 70116954024, 70116954025, 70116954026, 70116954027, 70116954028, 70116954029, 70116954030, 70116954031, 70116954032, 70116954033, 70116954034, 70116954035, 70116954036, 70116954037, 70116954038

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<33.0	33.0	01/08/20 06:40	
PCB-1221 (Aroclor 1221)	ug/kg	<67.0	67.0	01/08/20 06:40	
PCB-1232 (Aroclor 1232)	ug/kg	<33.0	33.0	01/08/20 06:40	
PCB-1242 (Aroclor 1242)	ug/kg	<33.0	33.0	01/08/20 06:40	
PCB-1248 (Aroclor 1248)	ug/kg	<33.0	33.0	01/08/20 06:40	
PCB-1254 (Aroclor 1254)	ug/kg	<33.0	33.0	01/08/20 06:40	
PCB-1260 (Aroclor 1260)	ug/kg	<33.0	33.0	01/08/20 06:40	
Decachlorobiphenyl (S)	%	95	30-150	01/08/20 06:40	
Tetrachloro-m-xylene (S)	%	80	30-150	01/08/20 06:40	

LABORATORY CONTROL SAMPLE: 692104

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	127	76	50-136	
PCB-1260 (Aroclor 1260)	ug/kg	167	151	90	45-154	
Decachlorobiphenyl (S)	%			104	30-150	
Tetrachloro-m-xylene (S)	%			82	30-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 692105

692106

Parameter	Units	70116954019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<37.7	190	189	238	224	125	118	28-173	6	
PCB-1221 (Aroclor 1221)	ug/kg	<76.5			<76.2	<76.0					
PCB-1232 (Aroclor 1232)	ug/kg	<37.7			<37.5	<37.4					
PCB-1242 (Aroclor 1242)	ug/kg	<37.7			<37.5	<37.4					
PCB-1248 (Aroclor 1248)	ug/kg	<37.7			<37.5	<37.4					
PCB-1254 (Aroclor 1254)	ug/kg	<37.7			<37.5	<37.4					
PCB-1260 (Aroclor 1260)	ug/kg	41.9	190	189	271	259	121	115	43-138	4	
Decachlorobiphenyl (S)	%						116	103	30-150		
Tetrachloro-m-xylene (S)	%						101	88	30-150		

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30
Pace Project No.: 70116954

QC Batch: 144950 Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 70116954023, 70116954053, 70116954054, 70116954055, 70116954056, 70116954057, 70116954058, 70116954059, 70116954060, 70116954061, 70116954062, 70116954063, 70116954064, 70116954065, 70116954066, 70116954067, 70116954068, 70116954069, 70116954070

METHOD BLANK: 694806 Matrix: Solid
Associated Lab Samples: 70116954023, 70116954053, 70116954054, 70116954055, 70116954056, 70116954057, 70116954058, 70116954059, 70116954060, 70116954061, 70116954062, 70116954063, 70116954064, 70116954065, 70116954066, 70116954067, 70116954068, 70116954069, 70116954070

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<33.0	33.0	01/10/20 20:31	
PCB-1221 (Aroclor 1221)	ug/kg	<67.0	67.0	01/10/20 20:31	
PCB-1232 (Aroclor 1232)	ug/kg	<33.0	33.0	01/10/20 20:31	
PCB-1242 (Aroclor 1242)	ug/kg	<33.0	33.0	01/10/20 20:31	
PCB-1248 (Aroclor 1248)	ug/kg	<33.0	33.0	01/10/20 20:31	
PCB-1254 (Aroclor 1254)	ug/kg	<33.0	33.0	01/10/20 20:31	
PCB-1260 (Aroclor 1260)	ug/kg	<33.0	33.0	01/10/20 20:31	
Decachlorobiphenyl (S)	%	98	30-150	01/10/20 20:31	
Tetrachloro-m-xylene (S)	%	71	30-150	01/10/20 20:31	

LABORATORY CONTROL SAMPLE: 694807

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	130	78	50-136	
PCB-1260 (Aroclor 1260)	ug/kg	167	166	100	45-154	
Decachlorobiphenyl (S)	%			105	30-150	
Tetrachloro-m-xylene (S)	%			77	30-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 694808 694809

Parameter	Units	70116954023 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<34.8	175	174	167	180	96	104	28-173	8	
PCB-1221 (Aroclor 1221)	ug/kg	<70.7			<70.2	<69.9					
PCB-1232 (Aroclor 1232)	ug/kg	<34.8			<34.6	<34.4					
PCB-1242 (Aroclor 1242)	ug/kg	<34.8			<34.6	<34.4					
PCB-1248 (Aroclor 1248)	ug/kg	<34.8			<34.6	<34.4					
PCB-1254 (Aroclor 1254)	ug/kg	<34.8			<34.6	<34.4					
PCB-1260 (Aroclor 1260)	ug/kg	<34.8	175	174	186	187	106	107	43-138	1	
Decachlorobiphenyl (S)	%						98	100	30-150		
Tetrachloro-m-xylene (S)	%						82	90	30-150		

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30
Pace Project No.: 70116954

QC Batch:	145095	Analysis Method:	EPA 8082A
QC Batch Method:	EPA 3546	Analysis Description:	8082 GCS PCB
Associated Lab Samples:	70116954039, 70116954040, 70116954041, 70116954042, 70116954043, 70116954044, 70116954045, 70116954046, 70116954047, 70116954048, 70116954049, 70116954050, 70116954051, 70116954052		

METHOD BLANK: 695452 Matrix: Solid
Associated Lab Samples: 70116954039, 70116954040, 70116954041, 70116954042, 70116954043, 70116954044, 70116954045, 70116954046, 70116954047, 70116954048, 70116954049, 70116954050, 70116954051, 70116954052

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	<33.0	33.0	01/14/20 01:40	
PCB-1221 (Aroclor 1221)	ug/kg	<67.0	67.0	01/14/20 01:40	
PCB-1232 (Aroclor 1232)	ug/kg	<33.0	33.0	01/14/20 01:40	
PCB-1242 (Aroclor 1242)	ug/kg	<33.0	33.0	01/14/20 01:40	
PCB-1248 (Aroclor 1248)	ug/kg	<33.0	33.0	01/14/20 01:40	
PCB-1254 (Aroclor 1254)	ug/kg	<33.0	33.0	01/14/20 01:40	
PCB-1260 (Aroclor 1260)	ug/kg	<33.0	33.0	01/14/20 01:40	
Decachlorobiphenyl (S)	%	119	30-150	01/14/20 01:40	
Tetrachloro-m-xylene (S)	%	97	30-150	01/14/20 01:40	

LABORATORY CONTROL SAMPLE: 695453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	121	73	50-136	
PCB-1260 (Aroclor 1260)	ug/kg	167	151	91	45-154	
Decachlorobiphenyl (S)	%			96	30-150	
Tetrachloro-m-xylene (S)	%			86	30-150	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 695823 695824

Parameter	Units	70116954039 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg	<34.6	173	172	155	177	90	103	28-173	14	
PCB-1221 (Aroclor 1221)	ug/kg	<70.3			<69.2	<69.1					
PCB-1232 (Aroclor 1232)	ug/kg	<34.6			<34.1	<34.0					
PCB-1242 (Aroclor 1242)	ug/kg	<34.6			<34.1	<34.0					
PCB-1248 (Aroclor 1248)	ug/kg	<34.6			<34.1	<34.0					
PCB-1254 (Aroclor 1254)	ug/kg	<34.6			<34.1	<34.0					
PCB-1260 (Aroclor 1260)	ug/kg	<34.6	173	172	191	189	111	110	43-138	1	
Decachlorobiphenyl (S)	%						94	88	30-150		
Tetrachloro-m-xylene (S)	%						88	89	30-150		

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

QC Batch:	144302	Analysis Method:	ASTM D2216-92M
QC Batch Method:	ASTM D2216-92M	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	70116954001, 70116954002, 70116954003, 70116954004, 70116954005, 70116954006, 70116954007, 70116954008, 70116954009, 70116954010, 70116954011, 70116954012, 70116954013, 70116954014, 70116954015		

SAMPLE DUPLICATE: 691473

Parameter	Units	70116954001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	4.0	4.1	2	

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

QC Batch:	144420	Analysis Method:	ASTM D2216-92M
QC Batch Method:	ASTM D2216-92M	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	70116954016, 70116954017, 70116954018, 70116954019, 70116954020, 70116954021, 70116954022, 70116954023, 70116954024, 70116954025, 70116954026, 70116954027		

SAMPLE DUPLICATE: 691959

Parameter	Units	70116954016 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	10.3	10.5	2	

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

QC Batch:	144572	Analysis Method:	ASTM D2216-92M
QC Batch Method:	ASTM D2216-92M	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	70116954028, 70116954029, 70116954030, 70116954031, 70116954032, 70116954033, 70116954034, 70116954035, 70116954036, 70116954037, 70116954038		

SAMPLE DUPLICATE: 692740

Parameter	Units	70116954031 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	5.8	6.0	3	

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

QC Batch:	144746	Analysis Method:	ASTM D2216-92M
QC Batch Method:	ASTM D2216-92M	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	70116954039, 70116954040, 70116954041, 70116954042, 70116954043, 70116954044, 70116954045, 70116954046, 70116954047, 70116954048, 70116954049, 70116954050, 70116954051, 70116954052, 70116954053		

SAMPLE DUPLICATE: 693780

Parameter	Units	70116954039 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	5.6	6.2	11	

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

QC Batch:	144919	Analysis Method:	ASTM D2216-92M
QC Batch Method:	ASTM D2216-92M	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples: 70116954054, 70116954055, 70116954056, 70116954057, 70116954058, 70116954059, 70116954060			

SAMPLE DUPLICATE: 694573

Parameter	Units	70116954060 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	22.3	24.3	9	

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QUALITY CONTROL DATA

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

QC Batch:	144935	Analysis Method:	ASTM D2216-92M
QC Batch Method:	ASTM D2216-92M	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	70116954061, 70116954062, 70116954063, 70116954064, 70116954065, 70116954066, 70116954067, 70116954068, 70116954069, 70116954070		

SAMPLE DUPLICATE: 694749

Parameter	Units	70116954061 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	12.8	11.5	11	

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QUALIFIERS

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70116954001	SS-1	EPA 3546	144317	EPA 8082A	144462
70116954002	SS-2	EPA 3546	144317	EPA 8082A	144462
70116954003	SS-3	EPA 3546	144317	EPA 8082A	144462
70116954004	SS-4	EPA 3546	144317	EPA 8082A	144462
70116954005	SS-5	EPA 3546	144317	EPA 8082A	144462
70116954006	SS-6	EPA 3546	144317	EPA 8082A	144462
70116954007	SS-7	EPA 3546	144317	EPA 8082A	144462
70116954008	SS-8	EPA 3546	144317	EPA 8082A	144462
70116954009	SS-9	EPA 3546	144317	EPA 8082A	144462
70116954010	SS-10	EPA 3546	144317	EPA 8082A	144462
70116954011	SS-11	EPA 3546	144317	EPA 8082A	144462
70116954012	SS-12	EPA 3546	144317	EPA 8082A	144462
70116954013	SS-13	EPA 3546	144317	EPA 8082A	144462
70116954014	SS-14	EPA 3546	144317	EPA 8082A	144462
70116954015	SS-15	EPA 3546	144317	EPA 8082A	144462
70116954016	SS-16	EPA 3546	144317	EPA 8082A	144462
70116954017	SS-17	EPA 3546	144317	EPA 8082A	144462
70116954018	SS-18	EPA 3546	144317	EPA 8082A	144462
70116954019	SS-19	EPA 3546	144445	EPA 8082A	144745
70116954020	SS-20	EPA 3546	144445	EPA 8082A	144745
70116954021	SS-21	EPA 3546	144445	EPA 8082A	144745
70116954022	SS-22	EPA 3546	144445	EPA 8082A	144745
70116954023	SS-23	EPA 3546	144950	EPA 8082A	145140
70116954024	SS-24	EPA 3546	144445	EPA 8082A	144745
70116954025	SS-25	EPA 3546	144445	EPA 8082A	144745
70116954026	SS-26	EPA 3546	144445	EPA 8082A	144745
70116954027	SS-27	EPA 3546	144445	EPA 8082A	144745
70116954028	SS-28	EPA 3546	144445	EPA 8082A	144745
70116954029	SS-29	EPA 3546	144445	EPA 8082A	144745
70116954030	SS-29B	EPA 3546	144445	EPA 8082A	144745
70116954031	SS-30	EPA 3546	144445	EPA 8082A	144745
70116954032	SS-31	EPA 3546	144445	EPA 8082A	144745
70116954033	SS-32	EPA 3546	144445	EPA 8082A	144745
70116954034	SS-33	EPA 3546	144445	EPA 8082A	144745
70116954035	SS-34	EPA 3546	144445	EPA 8082A	144745
70116954036	SS-35	EPA 3546	144445	EPA 8082A	144745
70116954037	SS-36	EPA 3546	144445	EPA 8082A	144745
70116954038	SS-37	EPA 3546	144445	EPA 8082A	144745
70116954039	SS-38	EPA 3546	145095	EPA 8082A	145327
70116954040	SS-39	EPA 3546	145095	EPA 8082A	145327
70116954041	SS-40	EPA 3546	145095	EPA 8082A	145327
70116954042	SS-41	EPA 3546	145095	EPA 8082A	145327
70116954043	SS-42	EPA 3546	145095	EPA 8082A	145327
70116954044	SS-43	EPA 3546	145095	EPA 8082A	145327
70116954045	SS-43B	EPA 3546	145095	EPA 8082A	145327
70116954046	SS-44	EPA 3546	145095	EPA 8082A	145327
70116954047	SS-45	EPA 3546	145095	EPA 8082A	145327

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BOMARC- SOILS 12/30

Pace Project No.: 70116954

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70116954048	SS-46	EPA 3546	145095	EPA 8082A	145327
70116954049	SS-47	EPA 3546	145095	EPA 8082A	145327
70116954050	SS-48	EPA 3546	145095	EPA 8082A	145327
70116954051	SS-49	EPA 3546	145095	EPA 8082A	145327
70116954052	SS-50	EPA 3546	145095	EPA 8082A	145327
70116954053	SS-51	EPA 3546	144950	EPA 8082A	145140
70116954054	SS-52	EPA 3546	144950	EPA 8082A	145140
70116954055	SS-53	EPA 3546	144950	EPA 8082A	145140
70116954056	SS-54	EPA 3546	144950	EPA 8082A	145140
70116954057	SS-55	EPA 3546	144950	EPA 8082A	145140
70116954058	SS-56	EPA 3546	144950	EPA 8082A	145140
70116954059	SS-57	EPA 3546	144950	EPA 8082A	145140
70116954060	SS-58	EPA 3546	144950	EPA 8082A	145140
70116954061	SS-59	EPA 3546	144950	EPA 8082A	145140
70116954062	SS-60	EPA 3546	144950	EPA 8082A	145140
70116954063	SS-61	EPA 3546	144950	EPA 8082A	145140
70116954064	SS-62	EPA 3546	144950	EPA 8082A	145140
70116954065	SS-63	EPA 3546	144950	EPA 8082A	145140
70116954066	SS-64	EPA 3546	144950	EPA 8082A	145140
70116954067	SS-65	EPA 3546	144950	EPA 8082A	145140
70116954068	SS-65B	EPA 3546	144950	EPA 8082A	145140
70116954069	SS-66	EPA 3546	144950	EPA 8082A	145140
70116954070	SS-67	EPA 3546	144950	EPA 8082A	145140
70116954001	SS-1	ASTM D2216-92M	144302		
70116954002	SS-2	ASTM D2216-92M	144302		
70116954003	SS-3	ASTM D2216-92M	144302		
70116954004	SS-4	ASTM D2216-92M	144302		
70116954005	SS-5	ASTM D2216-92M	144302		
70116954006	SS-6	ASTM D2216-92M	144302		
70116954007	SS-7	ASTM D2216-92M	144302		
70116954008	SS-8	ASTM D2216-92M	144302		
70116954009	SS-9	ASTM D2216-92M	144302		
70116954010	SS-10	ASTM D2216-92M	144302		
70116954011	SS-11	ASTM D2216-92M	144302		
70116954012	SS-12	ASTM D2216-92M	144302		
70116954013	SS-13	ASTM D2216-92M	144302		
70116954014	SS-14	ASTM D2216-92M	144302		
70116954015	SS-15	ASTM D2216-92M	144302		
70116954016	SS-16	ASTM D2216-92M	144420		
70116954017	SS-17	ASTM D2216-92M	144420		
70116954018	SS-18	ASTM D2216-92M	144420		
70116954019	SS-19	ASTM D2216-92M	144420		
70116954020	SS-20	ASTM D2216-92M	144420		
70116954021	SS-21	ASTM D2216-92M	144420		
70116954022	SS-22	ASTM D2216-92M	144420		
70116954023	SS-23	ASTM D2216-92M	144420		
70116954024	SS-24	ASTM D2216-92M	144420		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BOMARC- SOILS 12/30

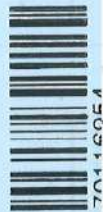
Pace Project No.: 70116954

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70116954025	SS-25	ASTM D2216-92M	144420		
70116954026	SS-26	ASTM D2216-92M	144420		
70116954027	SS-27	ASTM D2216-92M	144420		
70116954028	SS-28	ASTM D2216-92M	144572		
70116954029	SS-29	ASTM D2216-92M	144572		
70116954030	SS-29B	ASTM D2216-92M	144572		
70116954031	SS-30	ASTM D2216-92M	144572		
70116954032	SS-31	ASTM D2216-92M	144572		
70116954033	SS-32	ASTM D2216-92M	144572		
70116954034	SS-33	ASTM D2216-92M	144572		
70116954035	SS-34	ASTM D2216-92M	144572		
70116954036	SS-35	ASTM D2216-92M	144572		
70116954037	SS-36	ASTM D2216-92M	144572		
70116954038	SS-37	ASTM D2216-92M	144572		
70116954039	SS-38	ASTM D2216-92M	144746		
70116954040	SS-39	ASTM D2216-92M	144746		
70116954041	SS-40	ASTM D2216-92M	144746		
70116954042	SS-41	ASTM D2216-92M	144746		
70116954043	SS-42	ASTM D2216-92M	144746		
70116954044	SS-43	ASTM D2216-92M	144746		
70116954045	SS-43B	ASTM D2216-92M	144746		
70116954046	SS-44	ASTM D2216-92M	144746		
70116954047	SS-45	ASTM D2216-92M	144746		
70116954048	SS-46	ASTM D2216-92M	144746		
70116954049	SS-47	ASTM D2216-92M	144746		
70116954050	SS-48	ASTM D2216-92M	144746		
70116954051	SS-49	ASTM D2216-92M	144746		
70116954052	SS-50	ASTM D2216-92M	144746		
70116954053	SS-51	ASTM D2216-92M	144746		
70116954054	SS-52	ASTM D2216-92M	144919		
70116954055	SS-53	ASTM D2216-92M	144919		
70116954056	SS-54	ASTM D2216-92M	144919		
70116954057	SS-55	ASTM D2216-92M	144919		
70116954058	SS-56	ASTM D2216-92M	144919		
70116954059	SS-57	ASTM D2216-92M	144919		
70116954060	SS-58	ASTM D2216-92M	144919		
70116954061	SS-59	ASTM D2216-92M	144935		
70116954062	SS-60	ASTM D2216-92M	144935		
70116954063	SS-61	ASTM D2216-92M	144935		
70116954064	SS-62	ASTM D2216-92M	144935		
70116954065	SS-63	ASTM D2216-92M	144935		
70116954066	SS-64	ASTM D2216-92M	144935		
70116954067	SS-65	ASTM D2216-92M	144935		
70116954068	SS-65B	ASTM D2216-92M	144935		
70116954069	SS-66	ASTM D2216-92M	144935		
70116954070	SS-67	ASTM D2216-92M	144935		

REPORT OF LABORATORY ANALYSIS

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WO#: 70116954



7041605A

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company	SC Dept. Health Services	Report To	Edward Roe	Attention:	
Address	15 Horseback Place	Copy To:		Company Name	
	Farmingville, NY 11738			Address	
Email	edward.roe@suffolkcountyny.gov	Purchase Order #		Price Quote	
Phone	(631)854-2534	Project Name	BOMARC - SOILS	Price Project Manager	betty.harrison@pecelabs.com
Fax		Project #		Price Profile #	7920 LINE1
Requested Due Date				Regulatory Agency	
				State / Location	
				NY	

[illegible][illegible]



CHAIN-OF-CUSTODY / Analytical Request Document

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Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	SC Dept. Health Services	Report To:	Edward Roe	Attention:	
Address:	15 Horseblock Place	Copy To:		Company Name:	
	Farmingville, NY 11738			Address:	
Email:	edward.roe@surfolkcourt.nyc.gov	Purchase Order #		Pace Quote	
Phone:	(631)854-2534	Project Name:	BOMARC - SOILS	Pace Project Manager:	betty.harrison@paceelabs.com
Requested Due Date:		Project #		Pace Profile #	7920, LINE 1
				Regulatory Agency	
				State / Location	
				NY	

Page: 21 Of 61

ITEM #	MATRIX	CODE	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	DATE	TIME	# OF CONTAINERS	Preservatives								Y/N	Analyses Test	PCBs by 8082	Residual Chlorine (Y/N)	Requested Analysis Filtered (Y/N)
						START	END						H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other						
1	Drinking Water	DW	SS-12	SLG	G	12/31	8:30					1													
2	Wetter	WW	SS-13	SLG	G	12/31	8:33					1													
3	Waste Water	P	SS-14	SLG	G	12/31	8:34					1													
4	Product	SL	SS-15	SLG	G	12/31	8:37					1													
5	Soil/Solid	OL	SS-16	SLG	G	12/31	8:40					1													
6	Oil	WP	SS-17	SLG	G	12/31	8:36					1													
7	Wipe	AR	SS-18	SLG	G	12/31	8:37					1													
8	Air	OT	SS-19	SLG	G	12/31	8:38					1													
9	Other	TS	SS-20	SLG	G	12/31	8:49					1													
10	Tissue		SS-21	SLG	G	12/31	8:52					1													
11			SS-22	SLG	G	12/31	8:55					1													
12			SS-23	SLG	G	12/31	8:53					1													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on	Custody	Sealed	Cooler	Samples
SCOH	SCOH	11/30	11:16	Edward Roe	12/20	11:16	183	N	N	N	N	N
SAMPLER NAME AND SIGNATURE												
PRINT Name of SAMPLER:												
SIGNATURE of SAMPLER:												
DATE Signed:												



CHAIN-OF-CUSTODY / Analytical Request Document

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WO#: 70116954

PM: EMH Due Date: 01/27/20
CLIENT: SCDHS

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company	SC Dept. Health Services	Report To	Edward Roe	Attention	
Address	15 Horseblock Place Farmingville, NY 11738	Copy To		Company Name	
Enroll	edward.roe@sufolkcounty.ny.gov	Purchase Order #		Address	
Phone	(631) 854-2534	Project Name	BOMARC - SOILS	Pace Quote	
Requested Due Date		Project #		Pace Project Manager	betty.harrison@pccelabs.com
		Pace Profile #		7920, LINE 1	
		Regulatory Agency			
		State / Location			NY

ITEM #	MATRIX	CODE	COLLECTED		DATE	TIME	SAMPLE TYPE (G-GRAB, C-COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Preservatives						Y/N	Analyses Test	PCBs by 8082	Residual Chlorine (Y/N)
			START	END						H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol				
1	SS-24		12/31	8:53			SLG		1										
2	SS-25		12/31	8:54			SLG		1										
3	SS-26		12/31	8:55			SLG		1										
4	SS-27		12/31	8:55			SLG		1										
5	SS-28		12/31	8:57			SLG		1										
6	SS-29		12/31	9:00			SLG		1										
7	SS-29B		12/31	9:42			SLG		1										
8	SS-30		12/31	9:01			SLG		1										
9	SS-31		12/31	9:04			SLG		1										
10	SS-32		12/31	9:05			SLG		1										
11	SS-33		12/31	9:06			SLG		1										
12	SS-34		12/31	9:10			SLG		1										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	TEMP in C	Received on	Ice (Y/N)	Sealed (Y/N)	Cooler (Y/N)	Samples (Y/N)
SCDHS		12/30	11:16	Adm. Sec. PAC-11	12/20	11:16	18.3 N N						
SAMPLER NAME AND SIGNATURE													
PRINT Name of SAMPLER:													
SIGNATURE of SAMPLER:													
DATE Signed:													



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	SC Dept. Health Services	Report To:	Edward Roe	Attention:	
Address:	15 Horseblock Place	Copy To:		Company Name:	
	Farmville, NY 11738			Address:	
Email:	edward.roe@suffolkcounty.ny.gov	Purchase Order #:		Pace Quote:	
Phone:	(631)654-2534	Project Name:	BOMARC - SOILS	Pace Project Manager:	betty.harrison@paceabs.com
Requested Due Date:		Project #:		Pace Profile #:	7920, LINE 1
				Regulatory Agency:	
				State / Location:	
				NY	

ITEM #	MATRIX	CODE	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES						Y/N	Analyses Test	PCBs by 8082	Residual Chlorine (Y/N)	Requested Analysis Filtered (Y/N)	TEMP in C	Received on	Custody	Sealed	Cooler	Samples			
						START	END			H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol												Other		
						DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME				
1			SS-35	SLG		12/31	9:11																						
2			SS-36	SLG		12/31	9:20																						
3			SS-37	SLG		12/31	9:22																						
4			SS-38	SLG		12/31	9:25																						
5			SS-39	SLG		12/31	9:27																						
6			SS-40	SLG		12/31	9:30																						
7			SS-41	SLG		12/31	9:32																						
8			SS-42	SLG		12/31	9:32																						
9			SS-43	SLG		12/31	9:34																						
10			SS-43B	SLG		12/31	9:53																						
11			SS-44	SLG		12/31	9:34																						
12			SS-45	SLG		12/31	9:34																						
ADDITIONAL COMMENTS		SCDHS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS		TEMP in C		Received on		Custody		Sealed		Cooler		Samples	
						11/20		11:16		Pace Labs		11/20		11:16		18.2		11/20		18.2		N		N		N		N	



CHAIN-OF-CUSTODY / Analytical Request Document

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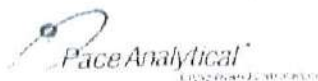
Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company	SC Dept. Health Services	Report To	Edward Roe	Attention:	
Address	15 Horseblock Place	Copy To:		Company Name:	
Farmingville, NY 11738				Address:	
Email:	edward.roe@ SuffolkCounty.ny.gov	Purchase Order #:		State / Location	NY
Phone:	(631) 854-2594	Project Name:	BOMARC - SOILS	Regulatory Agency	
Requested Due Date:		Project #		Pace Profile #	7820, LINE 1
				Pace Project Manager:	betty.harrison@pace-labs.com

Page: 15 of 61

ITEM #	MATRIX	CODE	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED		DATE	TIME	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	Received on	Ice (Y/N)	Custody (Y/N)	Sealed (Y/N)	Cooler (Y/N)	Samples (Y/N)
						START	END														
1	Drinking Water	DW	SS-46	SLG	G	12/31	9:34	12/31	9:34	12/30	11:17	Edward Roe	12/30	11:17	N	18-3	N	N	N	N	N
2	Water	WT	SS-47	SLG	G	12/31	9:35	12/31	9:35												
3	Waste Water	WW	SS-48	SLG	G	12/31	9:37	12/31	9:37												
4	Product	P	SS-49	SLG	G	12/31	9:56	12/31	9:56												
5	Soil/Ground	SL	SS-50	SLG	G	12/31	9:55	12/31	9:55												
6	Oil	OL	SS-51	SLG	G	12/31	10:49	12/31	10:49												
7	Wipe	WP	SS-52	SLG	G	12/31	10:50	12/31	10:50												
8	Air	AR	SS-53	SLG	G	12/31	10:50	12/31	10:50												
9	Other	OT	SS-54	SLG	G	12/31	10:52	12/31	10:52												
10	Tissue	TS	SS-55	SLG	G	12/31	10:52	12/31	10:52												
11			SS-56	SLG	G	12/31	10:53	12/31	10:53												
12			SS-57	SLG	G	12/31	10:56	12/31	10:56												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	SC-DITS	12/30	11:17	Edward Roe	12/30	11:17	N
SAMPLER NAME AND SIGNATURE							Received on
PRINT Name of SAMPLER:							Ice (Y/N)
SIGNATURE of SAMPLER:							Custody (Y/N)
DATE Signed:							Sealed (Y/N)
							Cooler (Y/N)
							Samples (Y/N)

[illegible]Page 93 of 94



Sample Condition Upon Receipt

WO#: 70116954

Client Name:

SC Dept. Health Service

PM: EMH Due Date: 01/27/20

CLIENT: SCDHS

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☒ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☒ NoTemperature Blank Present: ☐ Yes ☒ NoPacking Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ Ziploc ☐ None ☐ OtherType of Ice: Wet Blue None

Thermometer Used: TH091

Correction Factor: +0.2☐ Samples on ice, cooling process has begunCooler Temperature (°C): 18.3Cooler Temperature Corrected (°C): 18.5

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☐ N/A, water sample)Date and Initials of person examining contents: IT 1/2/20Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ YES ☒ NODid samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

			COMMENTS:
Chain of Custody Present:	☒ Yes	☐ No	1.
Chain of Custody Filled Out:	☒ Yes	☐ No	2.
Chain of Custody Relinquished:	☒ Yes	☐ No	3.
Sampler Name & Signature on COC:	☒ Yes	☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes	☐ No	5.
Short Hold Time Analysis (<72hr):	☐ Yes	☒ No	6.
Rush Turn Around Time Requested:	☐ Yes	☒ No	7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☒ Yes	☐ No	8.
Correct Containers Used:	☒ Yes	☐ No	9.
-Pace Containers Used:	☒ Yes	☐ No	
Containers Intact:	☒ Yes	☐ No	10.
Filtered volume received for Dissolved tests	☐ Yes	☐ No ☒ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☒ Yes	☐ No	12.
-Includes date/time/ID/Analysis Matrix <u>SL</u> WT OIL			
All containers needing preservation have been checked	☐ Yes	☐ No ☒ N/A	13. ☐ HNO ₃ ☐ H ₂ SO ₄ ☐ NaOH ☐ HCl
pH paper Lot #			Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO ₃ , H ₂ SO ₄ , HCl, NaOH > 9 Sulfide, NaOH > 12 Cyanide)	☐ Yes	☐ No ☒ N/A	
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis			Initial when completed: Lot # of added preservative: Date/Time preservative added
Samples checked for dechlorination:	☐ Yes	☐ No ☒ N/A	14.
KI starch test strips Lot #			
Residual chlorine strips Lot #			Positive for Res. Chlorine? Y N
Headspace in VOA Vials (>6mm):	☐ Yes	☐ No ☒ N/A	15.
Trip Blank Present:	☐ Yes	☐ No ☒ N/A	16.
Trip Blank Custody Seals Present	☐ Yes	☐ No ☒ N/A	
Pace Trip Blank Lot # (if applicable):			

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted:

Date/Time:

Comments/ Resolution:

Appendix F

Summary of Detected Analytes in

Groundwater

Office of Water Resources Samples

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			Field Parameters					Metals																					Inorganics				VOCs	Radiologicals								
Well ID	Sample Date	Well Screen Interval	Dept to Water	Turbidity	Field ORP	Field Conductivity	Field Temp	Field D.O.	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Sodium mg/l	Strontium ug/l	Tin ug/l	Titanium ug/l	Uranium ug/l	Vanadium ug/l	Zinc ug/l	Bromide mg/l	Chloride mg/l	Nitrate mg/l N	Sulfate mg/l SO4	Chloroform ug/l	Gross Beta pCi/l	Adjusted Gross Beta pCi/l	Tritium pCi/l		
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	2,000	2	-	-	-	7	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	20	-	-	-	-	-	-	-	-	250	10	250	7	1,000*	-	-	
Drinking Water Standard Subpart 5-1 (MCL)			-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	-	0.3	-	-	-	300	-	100	-	-	-	-	-	30	-	5,000	-	250	10	250	80	-	50**	20,000		
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BOM-1	5/29/2019	35 - 40	30.05	32.93	326	36.61	11.3	10.73	1436	0.48	2.2	40	0.5	0.59	34	1.4	33	4	1.4	1.2	0.57	175	6.3	17	<0.5	4.2	8.8	1.3	43	<0.5	2.7	8.1	<0.5	<30	<1	<30	1.1	1.2	1.2	<200		
	5/29/2019	45 - 50	30.05	14.34	223	40.96	10.9	10.56	287	<0.2	<1	8.6	<0.2	1.1	12	<1	9.6	1.4	2.3	<1	0.87	29	2.5	6.5	0.63	4.7	17	<0.5	13	<0.5	<1	<5	<0.05	7.4	0.15	4.7	1.3	<1	<1	<200		
	5/21/2019	55 - 60	30.05	8.82	197	56.06	11.2	10.68	207	<0.2	<1	12	<0.2	1.7	7.2	<1	<5	0.65	<1	<1	1.4	15	1.2	3.4	0.66	5.9	20	<0.5	8.8	<0.5	<1	<5	<0.05	12	0.33	5.2	2.1	<1	<1	<200		
	5/22/2019	65 - 70	30.05	22.26	168	37.72	11.5	10.61	429	<0.2	<1	12	<0.2	1.2	16	<1	7.2	1.8	<1	<1	1	58	2.4	7.3	0.61	3.8	12	0.58	20	<0.5	1.7	<5	<0.05	6.1	<0.1	5.3	0.9	<1	<1	<200		
	5/22/2019	75 - 80	30.05	37.21	143	42.42	10.9	9.94	736	0.23	1.2	14	<0.2	1.3	22	1.6	20	2.8	<1	<1	1.5	134	4.2	9.8	0.7	3.7	15	0.72	26	<0.5	1.4	<5	<0.05	7	<0.1	5.8	0.6	<1	<1	<200		
PFAS/Perchorate Duplicate Sample																																										
BOM-2	5/21/2019	40 - 45	37.05	26.16	255	41.84	11.9	11.21	781	<0.2	<1	22	0.23	0.98	19	<1	<5	2	1.6	<1	0.82	62	2.8	4.8	0.6	5.2	18	0.62	32	<0.5	1.5	<5	<0.05	8.4	<0.1	4.4	<0.5	1.1	0.61	<200		
	5/20/2019	50 - 55	37.05	33.35	184	40.63	15.6	10.24	903	<0.2	<1	15	<0.2	1	33	<1	5.2	3	3.8	<1	0.9	46	5	6	0.69	4.9	22	1	32	<0.5	1.3	<5	<0.5	<30	<1	<30	1.1	1.5	0.93	<200		
	5/20/2019	60 - 65	37.05	24.82	209	45.09	15.9	10.18	990	<0.2	<1	15	<0.2	1.4	29	<1	5.5	3.1	5.3	<1	1.2	39	4.3	5	0.76	4.9	20	1.2	41	<0.5	2.3	<5	<0.5	<30	<1	<30	1.1	<1	<1	<200		
	5/20/2019	70 - 75	37.05	15.76	175	40.27	14.2	9.59	461	<0.2	<1	11	<0.2	1.2	13	<1	<5	1.6	1.4	<1	1.1	39	2	3.1	0.58	4.2	12	0.72	21	<0.5	1.4	<5	<0.5	<30	<1	<30	0.8	<1	<1	<200		
PFAS/Perchorate Duplicate Sample																																										
BOM-3	5/20/2019	80 - 85	37.05	7.51	213	39.25	14.0	9.30	172	<0.2	<1	9.8	<0.2	1.1	4.7	<1	<5	0.41	<1	<1	1.2	21	<1	2.2	<0.5	3.6	13	0.61	10	<0.5	<1	<5	<0.05	6.2	<0.1	5.5	0.8	<1	<2	<200		
	7/2/2019	45 - 50	40.55	26.44	202	45.57	14.0	9.95	764	<0.2	<1	12	<0.2	1.2	23	<1	<5	2.3	1.2	1	1	41	3.5	5.1	0.75	5.5	24	1.4	34	<0.5	1.8	6.2	<0.05	8.1	<0.1	5.5	0.8	1.8	1.19	<200		
	7/2/2019	55 - 60	40.55	8.17	207	40.39	13.0	10.08	201	<0.2	<1	7.7	<0.2	1	9	<1	<5	0.9	<1	<1	0.8	12	1.4	2	0.66	5	20	<0.5	8.8	<0.5	<1	<5	<0.05	7.3	0.26	5	1.6	1.4	0.86	<200		
	7/1/2019	65 - 70	40.55	39.86	228	51.05	14.5	10.02	1018	<0.2	1.2	22	<0.2	2.1	27	2.1	10	3.4	3.8	1	1.4	73	4	6.4	0.77	5.3	20	1.1	45	<0.5	2.9	22	<0.5	<30	<1	<30	<0.5	<1	<1	<200		
BOM-3	7/1/2019	75 - 80	40.55	22.92	191	42.60	13.1	10.28	489	<0.2	<1	11	<0.2	1.2	16	<1	<5	1.9	1	<1	1.4	31	2.3	3	0.73	3.9	15	<0.5	25	<0.5	1.5	5.2	<0.5	<30	<1	<30	0.6	<1	<1	<200		
	PFAS/Perchorate Duplicate Sample																																									
	7/1/2019	85 - 90	40.55	20.21	211	35.61	12.0	9.89	275	<0.2	<1	9	<0.2	1.3	5.2	1.4	<5	0.86	4.4	<1	1.3	29	<1	1.4	<0.5	3.5	13	<0.5	16	<0.5	1	33	<0.05	4.8	0.16	6	0.8	<1	<1	<200		
	6/3/2019	35 - 40	36.11	48.83	255	56.79	15.6	9.68	1206	<0.2	<1	24	<0.2	5.4	42	1	11	4	2.2	<1	0.61	61	6.4	9.2	2.4	3.4	34	2.3	52	<0.5	2.7	<5	<0.05	<3	1.1	6.7	<0.5	2.3	0.33	<200		
BOM-4	6/3/2019	45 - 50	36.11	25	265	39.19	13.4	10.38	669	<0.2	<1	19	<0.2	1.1	22	<1	<5	2.2	<1	<1	0.71	56	3.5	4.8	0.54	4.6	20	0.89	28	<0.5	1.3	<5	<0.05	7.2	<0.1	4.8	<0.5	1.9	1.46	<200		
	6/3/2019	55 - 60	36.11	40.82	249	44.54	12.4	10.17	835	<0.2	<1	13	<0.2	1.3	31	<1	6.1	3.4	1.2	<1	1.1	36	5	4.3	0.75	5.3	17	0.84	37	<0.5	2.2	<5	<0.05	8.4	0.23	4.8	1.1	1	0.39	<200		
	PFAS/Perchorate Duplicate Sample																																									
	5/29/2019	65 - 70	36.11	40.49	246	50.15	13.1	10.43	736	<0.2	<1	15	<0.2	1.4	30	<1	6.2	2.9	<1	<1	1.3	35	4.5	4.5	0.76	5.6	16	0.72	27	<0.5	1.5	<5	<0.5	<30	<1	<30	1.5	<1	<1	<200		
BOM-4	5/29/2019	75 - 80	36.11	25.82	239	41.94	11.8	10.86	385	<0.2	<1	11	<0.2	1.2	14	<1	<5	1.6	21	<1	1.3	31	2	2																		

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			Field Parameters						Metals																					Inorganics				VOCs	Radiologicals							
Well ID	Sample Date	Well Screen Interval	Dept to Water	Turbidity	Field ORP	Field Conductivity	Field Temp	Field D.O.	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Sodium mg/l	Strontium ug/l	Tin ug/l	Titanium ug/l	Uranium ug/l	Vanadium ug/l	Zinc ug/l	Bromide mg/l	Chloride mg/l	Nitrate mg/l N	Sulfate mg/l SO4	Chloroform ug/l	Gross Beta pCi/l	Adjusted Gross Beta pCi/l	Tritium pCi/l		
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	2,000	2	-	-	-	7	-	-	-	
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	20	-	-	-	-	-	-	-	-	250	10	250	7	1,000*	-	-	-
Drinking Water Standard Subpart 5-1 (MCL)			-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	-	0.3	-	-	-	300	-	100	-	-	-	-	-	30	-	5,000	-	250	10	250	80	-	50**	20,000		
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BOM-11	5/13/2019	35 - 40	35.11	38.38	156	454.5	11.9	9.75	1326	<0.2	<1	18	<0.2	13	28	1.5	6.3	3.4	1.7	1.1	4.3	99	5.4	9.7	0.7	72	27	3.4	58	<0.5	3	<5	<0.5	105	<1	<30	<0.5	<1	<1	<200		
	5/13/2019	45 - 50	35.11	41.12	161	244.6	11.8	9.68	1057	<0.2	<1	22	<0.2	11	31	1	5.8	3.6	1.1	<1	0.93	74	5.3	5.7	1.8	35	80	1.4	44	<0.5	2.4	<5	<0.5	55	1.4	<30	<0.5	1.3	<1	<200		
	5/6/2019	55 - 60	35.11	11.24	197	119.3	12.3	10.48	748	<0.2	<1	16	<0.2	3.4	32	<1	5.3	3.4	<1	<1	0.4	48	5.5	6.4	1	19	32	1.3	34	<0.5	2.4	<5	<1.25	<75	<2.5	<75	1	<1	<1	<200		
	5/7/2019	65 - 70	35.11	30.38	247	58.84	12.0	10.62	490	<0.2	<1	14	<0.2	3.8	22	<1	<5	2.4	<1	<1	0.44	26	3.4	3.2	0.69	6.2	37	0.71	23	<0.5	1	<5	<0.05	13	<0.1	4.4	0.9	1	0.43	<200		
	5/7/2019	75 - 80	35.11	10.06	255	37.01	11.7	10.4	170	<0.2	<1	9.8	<0.2	2	7.7	<1	<5	0.82	<1	<1	0.54	11	1.2	1.5	0.62	3.5	28	0.51	8.4	<0.5	<1	<5	<0.05	5.3	<0.1	5.7	0.6	<1	<1	<200		
BOM-12	5/14/2019	35 - 40	34.71	26.04	167	372.6	11.6	10.39	702	<0.2	<1	16	<0.2	9.9	16	<1	<5	1.8	<1	<1	4.1	30	3.1	3.8	0.59	56	31	0.59	40	<0.5	1.5	<5	<0.5	86	<1	<30	<0.5	1.2	0.72	<200		
	5/14/2019	45 - 50	34.71	35.54	218	163.5	11.4	10.05	831	<0.2	<1	47	<0.2	13	23	<1	5.1	3.1	<1	<1	2.1	94	3.8	4.6	1.8	12	108	0.58	38	<0.5	1.7	<5	<0.5	<30	1.2	36	<0.5	3.5	2.02	561		
	5/14/2019	55 - 60	34.71	27.8	210	149.2	11.1	10.46	556	<0.2	<1	28	<0.2	5	26	<1	<5	2.8	<1	<1	1.7	31	3.8	3.8	1.2	20	71	<0.5	30	<0.5	1.3	<5	<0.5	43	1	<30	<0.5	3.4	2.42	1451		
	5/13/2019	65 - 70	34.71	30.79	237	73.07	11.0	10.61	563	<0.2	<1	16	<0.2	1.9	24	<1	<5	2.7	<1	<1	1.6	34	3.5	4.1	0.86	8.9	22	0.63	32	<0.5	1.7	<5	<0.5	<30	<1	<30	0.6	<1	<1	306		
	5/13/2019	75 - 80	34.71	14.29	263	53.19	10.9	10.91	321	<0.2	<1	9.6	<0.2	1.4	9.5	<1	<5	1.2	<1	<1	1.6	21	1.3	3	0.62	5.5	15	<0.5	21	<0.5	1.2	<5	<0.05	9.7	<0.1	6.5	1.2	<1	<1	<200		
BOM-13	6/3/2019	35 - 40	34.87	6.31	121	195.2	14.0	10.64	70	<0.2	<1	7.2	<0.2	14	4.3	<1	<5	0.3	<1	<1	4.5	4.1	1	1.4	0.63	15	45	<0.5	<5	<0.5	<1	<5	<0.05	21	2.9	8.8	<0.5	<1	<1	<200		
	5/22/2019	45 - 50	34.87	13.9	76	442.0	12.8	10.42	233	<0.2	<1	27	<0.2	12	11	<1	<5	0.94	<1	<1	2.6	15	2.4	2.4	1.1	65	119	<0.5	8.2	<0.5	<1	<5	0.05	100	2.5	9.6	<0.5	1	0.1	<200		
	5/22/2019	55 - 60	34.87	13.6	77	508.0	12.5	10.36	289	<0.2	<1	55	<0.2	11	9	<1	<5	1	<1	<1	1.8	17	2.2	1.9	3.4	82	485	<0.5	13	<0.5	<1	<5	0.06	119	1.7	12	<0.5	2.3	<1	<200		
	5/22/2019	65 - 70	34.87	4.29	180	366.8	12.1	10.52	68	<0.2	<1	92	<0.2	5.9	3.3	<1	<5	0.29	<1	<1	2.8	5.8	<1	0.73	3.7	52	340	<0.5	<5	<0.5	<1	<5	0.05	97	0.65	10	0.8	3.7	0.67	<200		
	5/22/2019	75 - 80	34.87	11.7	168	109.5	12.1	11.02	77	<0.2	<1	18	<0.2	1.8	3.9	<1	<5	0.36	<1	<1	2.3	5.2	<1	0.81	0.8	14	26	<0.5	<5	<0.5	<1	<5	<0.05	25	0.12	7.7	0.8	1	0.34	<200		
BOM-14	5/8/2019	35 - 40	31.54	15.2	137	112.8	13.9	10.82	209	<0.2	<1	21	<0.2	3.5	8.7	<1	<5	0.69	<1	<1	1.4	22	1.7	2.4	0.51	16	16	<0.5	7.5	<0.5	<1	47	0.05	20	0.16	7.6	<0.5	<1	<1	<200		
	5/8/2019	45 - 50	31.54	20.2	143	393.5	12.7	10.44	531	<0.2	<1	162	<0.2	6.1	23	<1	<5	2.2	<1	<1	1.6	91	3.8	6.7	12	58	42	<0.5	27	<0.5	1	<5	0.07	90	0.6	32	0.5	9.2	<1	<200		
	5/8/2019	55 - 60	31.54	6.27	196	95.27	13.2	10.49	139	<0.2	<1	43	<0.2	2.4	4	<1	<5	0.53	<1	<1	1.2	15	<1	1.3	6.4	8.3	54	<0.5	8.1	<0.5	<1	<5	<0.05	11	0.61	17	0.5	6.1	0.85	<200		
	5/7/2019	65 - 70	31.74	3.92	170	72.92	12.9	10.63	34	<0.2	<1	22	<0.2	2.6	1.7	<1	<5	0.18	<1	<1	1.7	4	<1	0.6	2.4	5.9	37	<0.5	<5	<0.5	<1	<5	<0.05	9.8	0.43	11	0.7	2.4	0.43	<200		
	5/7/2019	75 - 80	31.74	23.4	141	53.64	12.3	11.09	392	<0.2	<1	12	<0.2	1.8	11	<1	<5	1.5	1.3	<1	2.4	26	1.6	1.8	0.98	3.4	20	<0.5	24	<0.5	1.7	<5	<0.05	6.1	<0.							

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			Field Parameters						Metals																				Inorganics				VOCs	Radiologicals							
Well ID	Sample Date	Well Screen Interval	Dept to Water	Turbidity	Field ORP	Field Conductivity	Field Temp	Field D.O.	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Sodium mg/l	Strontium ug/l	Tin ug/l	Titanium ug/l	Uranium ug/l	Vanadium ug/l	Zinc ug/l	Bromide mg/l	Chloride mg/l	Nitrate mg/l N	Sulfate mg/l SO4	Chloroform ug/l	Gross Beta pCi/l	Adjusted Gross Beta pCi/l	Tritium pCi/l	
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	2,000	2	-	-	-	7	-	-	-
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	20	-	-	-	-	-	-	-	-	250	10	250	7	1,000*	-	-
Drinking Water Standard Subpart 5-1 (MCL)			-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	-	0.3	-	-	-	300	-	100	-	-	-	-	-	30	-	5,000	-	250	10	250	80	-	50**	20,000	
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BOM-21	4/30/2019	35 - 40	33.55	31.64	39	184.9	13.0	9.10	741	<0.2	<1	17	<0.2	24	26	1.1	<5	3.1	<1	<1	2.7	59	6.1	7.3	2.4	13	86	<0.5	31	<0.5	1.7	<5	<1.25	<75	<2.5	<75	2.1	2.4	0.43	<200	
	4/30/2019	45 - 50	33.55	7.42	87	292.5	12.9	7.99	99	<0.2	<1	38	<0.2	40	11	<1	<5	0.53	<1	<1	4.7	18	2.7	6.6	3.1	13	168	<0.5	<5	<0.5	<1	<5	<0.05	17	3.5	21	<0.5	3.6	1.06	<200	
	4/29/2019	55 - 60	33.55	14.29	188	188.8	13.4	7.39	662	<0.2	<1	34	<0.2	18	20	<1	<5	2.1	1.2	<1	2.4	34	3	3.8	2.3	16	71	0.81	37	<0.5	2.4	<5	<0.05	22	3.1	22	<0.5	2.2	0.31	<200	
	4/29/2019	65 - 70	33.55	8.37	213	200.2	13.2	7.35	167	<0.2	<1	37	<0.2	16	5.9	<1	<5	0.53	<1	<1	3.2	14	1.2	2.4	1.5	17	88	0.64	9.5	<0.5	<1	<5	<0.05	21	3.8	28	<0.5	3.7	2.47	<200	
	4/25/2019	75 - 80	33.55	27.07	149	171.3	13.8	7.74	508	<0.2	<1	40	<0.2	15	13	1	<5	1.8	1.3	<1	1.8	41	2	4.8	1.5	13	52	0.83	32	<0.5	2.6	<5	<2.5	<150	<5	<150	<0.5	2.5	1.27	<200	
BOM-22	4/25/2019	35 - 40	32.40	25.83	76	136.7	14.0	8.78	1029	<0.2	<1	17	<0.2	12	35	1.5	8.2	4.3	1.2	<1	2.3	60	7.3	9.4	1.1	13	58	0.76	38	<0.5	2.3	<5	<1.25	<75	<2.5	<75	<0.5	1.9	1	<200	
	4/24/2019	45 - 50	32.40	38.77	67	181.0	15.5	8.57	1890	<0.2	<1	35	<0.2	23	26	1.4	6.9	3.7	1.4	1.2	2.8	54	4	6.5	2.2	8.9	68	1.4	67	<0.5	3.5	<5	<2.5	470	27	278	0.9	2.5	0.7	<200	
	4/24/2019	55 - 60	32.40	8.03	99	256.8	14.0	8.37	250	<0.2	<1	34	<0.2	35	7.2	<1	<5	0.7	<1	<1	3.3	13	1.3	2.2	3	9.6	116	0.91	13	<0.5	<1	<5	<0.05	16	3.3	16	<0.5	3.3	0.84	<200	
	4/24/2019	65 - 70	32.40	19.89	87	300.1	14.1	7.18	507	<0.2	<1	38	<0.2	43	7.9	<1	<5	1.2	<1	<1	4.4	53	1.5	2.5	3.3	13	136	0.85	28	<0.5	1.6	<5	<0.5	<30	3.2	<30	<0.5	3.6	0.89	<200	
	4/24/2019	75 - 80	32.4	22.58	96	250.3	13.6	7.60	450	<0.2	<1	40	<0.2	32	7.9	<1	<5	1.6	1.3	<1	3.2	43	1.5	2	3	11	100	<0.5	26	<0.5	2.6	<5	<0.05	23	2.4	23	<0.5	5.3	2.84	<200	
BOM-23	4/23/2019	85 - 90	32.40	37.6	129	158.0	15.3	5.79	595	<0.2	<1	25	<0.2	17	18	<1	<5	2.9	<1	<1	2.6	82	3.6	4.8	1.1	7.8	75	0.72	31	<0.5	1.7	<5	<0.05	16	1.1	22	<0.5	3	2.1	<200	
	7/11/2019	40 - 45	34.31	20	251	394.5	13.7	9.29	1116	<0.2	<1	20	<0.2	8.6	4.6	1.1	<5	1.1	1	1.3	2.6	59	<1	2.7	0.92	63	63	<0.5	40	<0.5	3	<5	<0.5	92	1.2	<30	<0.5	1.4	0.65	<200	
	7/11/2019	50 - 55	34.31	15.6	246	185.3	14.1	9.63	1499	<0.2	<1	13	<0.2	7	5.3	1.4	<5	1.5	1.4	1.6	1	76	<1	3.7	1.5	28	29	<0.5	53	<0.5	4.1	<5	<0.5	<30	<1	<30	<0.5	1.4	0.17	<200	
	7/10/2019	60 - 65	34.31	7.19	274	276.0	14.1	8.12	439	<0.2	<1	18	<0.2	19	2.4	<1	<5	0.45	<1	<1	1.8	23	<1	1.1	3.7	28	57	<0.5	17	<0.5	1.2	<5	<0.05	48	1.2	15	<0.5	4.3	1.27	<200	
	7/10/2019	70 - 75	34.31	8.7	281	221.6	13.7	9.23	686	<0.2	<1	24	<0.2	16	2.6	<1	<5	0.72	<1	1.1	2.5	35	<1	1.1	2.5	21	32	<0.5	27	<0.5	2.1	17	<0.05	35	0.92	17	<0.5	3.3	1.25	<200	
	7/10/2019	80 - 85	34.31	11.3	251	177.9	13.9	8.73	683	<0.2	<1	21	<0.2	17	3.3	<1	<5	0.72	<1	1	1.9	37	<1	1.3	2.9	15	33	<0.5	26	<0.5	2.3	<5	<0.05	12	1.8	14	<0.5	3.8	1.42	<200	
	7/8/2019	90 - 95	34.31	8.8	255	193.7	13.4	9.26	760	<0.2	<1	47	<0.2	25	3.6	<1	<5	0.74	<1	1.3	2.2	41	<1	1.2	2.8	13	59	<0.5	29	<0.5	2.5	<5	<0.5	<30	1.4	<30	<0.5	4	1.7	<200	
	7/8/2019	100 - 105	34.31	5.8	295	139.2	13.8	9.81	438	<0.2	<1	19	<0.2	18	2.9	<1	<5	0.47	2.8	1.1	1.6	29	<1	0.92	1.3	5.9	77	<0.5	16	<0.5	1.5	7.5	<0.05	7	0.6	18	<0.5	1.5	0.43	<200	
	7/8/2019	110 - 115	34.31	5.26	266	116.8	13.7	9.72	577	<0.2	<1	15	<0.2	7	3.7	<1	<5	0.58	<1	1	5	31	<1	1.2	0.62	5.8	37	<0.5	22	<0.5	1.9	<5	<0.05	7.8	0.77	20	<0.5	1.2	0.69	<200	
	7/2/2019	120 - 125	34.31	3.09	294	46.71	13.6																																		

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			Field Parameters						Metals																				Inorganics				VOCs	Radiologicals							
Well ID	Sample Date	Well Screen Interval	Dept to Water	Turbidity	Field ORP	Field Conductivity	Field Temp	Field D.O.	Aluminum ug/l	Antimony ug/l	Arsenic ug/l	Barium ug/l	Beryllium ug/l	Calcium mg/l	Chromium ug/l	Cobalt ug/l	Copper ug/l	Iron (Ferric) mg/l	Lead ug/l	Lithium ug/l	Magnesium mg/l	Manganese ug/l	Molybdenum ug/l	Nickel ug/l	Potassium mg/l	Sodium mg/l	Strontium ug/l	Tin ug/l	Titanium ug/l	Uranium ug/l	Vanadium ug/l	Zinc ug/l	Bromide mg/l	Chloride mg/l	Nitrate mg/l N	Sulfate mg/l SO4	Chloroform ug/l	Gross Beta pCi/l	Adjusted Gross Beta pCi/l	Tritium pCi/l	
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	3	-	-	3	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	2,000	2	-	-	-	7	-	-	-
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	3	25	1,000	-	-	50	-	200	0.3	25	-	-	300	-	100	-	20	-	-	-	-	-	-	-	-	250	10	250	7	1,000*	-	-
Drinking Water Standard Subpart 5-1 (MCL)			-	-	-	-	-	-	-	6	10	2,000	4	-	100	-	-	0.3	-	-	-	300	-	100	-	-	-	-	-	30	-	5,000	-	250	10	250	80	-	50**	20,000	
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,300	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
BOM-28	4/24/2019	35 - 40	27.25	32.2	-20	318.0	15.3	6.95	924	<0.2	<1	32	<0.2	45	27	1.1	6.7	3.6	<1	<1	6.5	40	7.3	8.7	4.5	11	206	0.79	40	<0.5	1.8	<5	<0.5	<30	2.2	33	<0.5	4.1	0.41	<200	
	4/24/2019	45 - 50	PFAS/Perchlorate Duplicate Sample																																						
	4/24/2019	55 - 60	27.25	12.7	72	154.9	15.1	8.58	303	<0.2	<1	23	<0.2	14	8.2	<1	<5	0.77	<1	<1	4.2	8.3	1.9	4.3	1.2	8.9	39	<0.5	11	<0.5	<1	<5	<0.05	12	1.4	11	<0.5	1.4	0.42	<200	
	4/23/2019	65 - 70	27.25	18.6	111	44.35	14.4	10.11	190	<0.2	<1	11	<0.2	1.6	5.7	<1	<5	0.41	<1	<1	1.1	13	1.1	2.8	0.58	6.4	16	0.7	<5	<0.5	<1	<5	<0.05	<3	<0.1	<3	<0.5	1.5	1.02	<200	
	4/23/2019	75 - 80	27.25	22	113	42.68	13.4	10.67	391	<0.2	<1	11	<0.2	1.5	7.3	<1	<5	1	<1	<1	1.2	18	1.4	1.7	0.61	3.8	15	<0.5	21	<0.5	1.7	<5	<0.05	5.9	<0.1	6	0.7	<1	<1	<200	
	4/23/2019	85 - 90	27.25	19.5	93	41.44	12.7	10.7	349	<0.2	<1	8.6	<0.2	1.4	12	<1	<5	1.3	<1	<1	1.4	19	2.5	2.2	0.61	3.7	14	0.63	10	<0.5	<1	6.1	<0.05	5	<0.1	6.6	0.5	<1	<1	<200	
BOM-29	10/3/2019	45 - 50	39.21	8.06	154	98.38	11.50	10.96	200	<0.2	<1	21	<0.2	6.4	8	<1	<5	0.95	<1	<1	1.1	51	1	3.8	1.2	8.4	49	<0.5	8	<0.5	<1	8	<0.05	14	0.6	12	<0.5	1.5	1.5	<200	
	10/3/2019	55 - 60	39.21	6.42	154	71.41	12.60	10.54	223	<0.2	<1	14	<0.2	2.8	5	<1	<5	0.57	<1	<1	0.7	62	1	3.6	0.6	8.3	34	<0.5	6	<0.5	<1	11	<0.05	15	0.3	4	<0.5	1.6	1.6	<200	
	10/2/2019	65 - 70	39.21	7.45	151	43.59	14.80	10.50	167	<0.2	<1	10	<0.2	1.4	7	<1	<5	0.75	<1	<1	1.1	38	1.0	3.3	0.6	4.2	16	<0.5	8	<0.5	<1	6	<0.05	7	<0.1	5	0.9	<1	<1	<200	
	10/2/2019	75 - 80	39.21	3.54	145	81.15	15.60	10.34	43	<0.2	<1	7	<0.2	1.2	2	<1	<5	0.20	<1	<1	1.2	29	<1	1.1	0.5	5.6	13	<0.5	<5	<0.5	<1	<5	<0.05	8	<0.1	7	1.2	<1	<1	<200	
10/2/2019	85 - 90	39.21	3.57	173	50.46	15.40	10.49	107	<0.2	<1	8	<0.2	1.3	3	<1	<5	0.37	<1	<1	1.5	42	<1	1.1	<0.5	5.0	15	<0.5	6	<0.5	<1	<5	<0.05	8	<0.1	7	0.8	<1	1.7	<200		
BOM-30	10/1/2019	35 - 40	38.56	7.76	121	72.00	14.30	10.67	141	<0.2	<1	14	<0.2	2.0	4	<1	<5	0.51	<1	<1	1.6	108	<1	4.1	<0.5	8.1	21	<0.5	8	<0.5	<1	211	<0.05	11	0.2	10	0.8	1.4	1.4	<200	
	10/1/2019	45 - 50	38.56	5.55	148	126.60	13.40	10.23	221	<0.2	<1	42	<0.2	7.5	8	<1	<5	1.18	<1	<1	1.4	115	2	4.8	1.4	8.4	62	<0.5	7	<0.5	<1	34	<0.05	15	0.7	24	<0.5	2.8	2.8	<200	
	10/1/2019	55 - 60	38.56	5.73	168	51.51	14.10	10.32	139	<0.2	<1	9	<0.2	1.5	8	<1	<5	0.83	<1	<1	0.9	54	1	3.5	0.5	5.7	23	<0.5	7	<0.5	<1	<5	<0.05	9	0.3	5	<0.5	1.3	1.3	<200	
	9/30/2019	65 - 70	38.56	2.66	166	45.58	13.90	10.60	167	<0.2	<1	10	<0.2	1.4	7	<1	<5	0.75	<1	<1	1.1	38	1	3.3	0.6	4.2	16	<0.5	8	<0.5	<1	6	<0.05	8	<0.1	6	0.9	<1	<1	<200	
	9/30/2019	75 - 80	38.56	5.53	158	57.62	13.20	10.90	69	<0.2	<1	8	<0.2	1.4	2	<1	<5	0.56	<1	<1	1.5	23	<1	1.0	0.6	6.1	17	<0.5	<5	<0.5	<1	<5	<0.05	10	0.1	7	1.3	<1	<1	<200	
	9/30/2019	85 - 90	38.56	11.60	149	48.15	12.10	11.96	107	<0.2	8	<0.2	<0.2	1.3	3	<1	<5	0.37	<1	<1	1.5	42	<1	1.1	<0.5	5.0	15	<0.5	6	<0.5	<1	<5	<0.05	7	0.1	7	0.7	<1	<1	<200	
BOM-31	10/2/2019	35 - 40	35.92	24.09	87	178.20	15.20	8.65	891	<0.2	1	17	<0.2	11.6	39	2	47	3.90	3	<1	3.5	111	8	17	1.0	15.8	34	<0.5	40	<0.5	2	93	2.5	<150	<5	<150	<0.5	1.7	1.7	<200	
	10/1/2019	45 - 50	35.92	30.84	150	129.60	14.10	9.38	1049	<0.2	<1	43	<0.2	6.1	44	2	12	4.86	<1	1	0.7	113	7	16	1.6	15.9	62	0.8	40	<0.5	2	37	<0.05	26	0.9	9	<0.5	2	2	<200	
	10/1/2019	55 - 60	35.92	12.72	159	44.76	12.90	9.56	228	<0.2	<1	13	<0.2	1.7	16	2	<5	2.23	<1	<1	0.6	108	<2.5	8.1	0.5	4.9	26	<0.5	11	<0.5	<1	60	<0.05	7	<0.1		<0.5	<1	1.4	<200	
	10/1/2019	65 - 70	35.92	20.21	134	51.15	13.10	8.72	297	<0.2	<1	14	<0.2	1.7	16	3	5	2.48	<1	<1	1.2	353	5	11	0.6	4.6	17	<0.5	15	<0.5	<1	86	<0.05	9	<0.1	5	1.0	<1	<1	<200	
	9/30/2019	75 - 80	35.92	25.92	171	47.07	14.10	10.12	455	<0.2	<1	11	<0.2	1.3	19	2	6	2.56	1	<1	1.5	118	3	7.9	0.6	4.2	15	<0.5	27	<0.5	2	88	<0.05	7	<0.1	6	0.8	<1	<1	<200	
	9/30/2019	85 - 90	35.92	14.24	183	42.88	12.20	10.79	363	<0.2	<1	10	<0.2	1.4	6	<1	<5	0.98	<1	<1	1.2	143	2	4.5	0.5	4.3	14	<0.5	21	<0.5	2	12	<0.05	5	<0.1	7	<0.5	<1	<1	<200	
BOM-32	10/7/2019	35 - 40	35.70	34.30	158	228.70	16.20	10.18	969	0.4	2	15	<0.2	5.6	45	<1	21	3.59	1	<1	2.3	65	7	16	<5	35	23	0.7	34	<0.5	2	305	<1.25	<75.0	<2.50	<75.0	1.3	1.7	1.7	<200	
	10/7/2019	45 - 50	35.70	40.48	215	113.90	14.80	10.15	1215	0.4	2	61	<0.2	8.8	48	2	25	4.33	1	<1	1.6	129	8	21	1.8	7.8	62	0.9	42	<0.5	2	704	<1.25	<75.0	<2.50	<75.0	<0.5	2.6	2.6	<200	
	10/7/2019	55 - 60	35.70	10.16	189	61.72	12.50	10.22	342	<0.2	<1	15	<0.2	2.3	9	<1	<5	1.23	<1	<1	0.9	93	2																		

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			SVOCs			Herbicide Metabolites				Chlorate	1,4-Dioxane	Perchlorate	PFAS																							
Well ID	Sample Date	Well Screen Interval	Bisphenol A ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Metolachlor Metabolite CGA-67125 ug/l	2-HydroxyAtrazine ug/l	Phenytoln (Dilantin) ug/l	Trichlorfon ug/l	Chlorate mg/l	1,4-Dioxane ug/l	Perchlorate ug/L	6:2FTS ng/l	8:2FTS ng/l	NEtFOSSA ng/l	NMeFOSSA ng/l	PFBS ng/l	PFBA ng/l	PFDS ng/l	PFDA ng/l	PFDoA ng/l	PFHpS ng/l	PFHpA ng/l	PFHxS ng/l	PFHxA ng/l	PFNA ng/l	FOSA ng/l	PFOS ng/l	PFOA ng/l	PFPeA ng/l	PFTeA ng/l	PFTrIA ng/l	PFUnA ng/l			
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Drinking Water Standard Subpart 5-1 (MCL)			50	50	50	50	50	50	50	-	1	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	10	50,000	50,000	50,000	50,000	50,000		
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BOM-1	5/29/2019	35 - 40	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.6	<2.6	0.33 J	<5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<0.85	1.1 J	<1.7	<1.7	<2.6	9.8	<0.85	<5.1	<0.85	<0.85	<1.7		
	5/29/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.87	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.87	<1.7	<1.7	<2.6	<1.7	<0.87	<5.2	<0.87	<0.87	<1.7			
	5/21/2019	55 - 60	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.87	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.87	<1.7	<1.7	<2.6	<1.7	0.26 J	<5.2	<0.87	<0.87	<1.7			
	5/22/2019	65 - 70	<0.2	<0.6	<0.4	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<5.3	<2.7	<2.7	<0.89	<5.3	<1.8	<1.8	<1.8	<1.8	<1.8	<0.89	<1.8	<1.8	<1.8	<2.7	<1.8	<0.89	<5.3	<0.89	<0.89	<1.8		
	5/22/2019	75 - 80	<0.2	<0.6	<0.4	0.4	<0.3		<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.86	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.86	<1.7	<1.7	<1.7	0.73 J	<1.7	<0.86	<5.2	<0.86	<0.86	<1.7		
BOM-2	5/21/2019	40 - 45	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<5.3	<2.7	<2.7	<0.89	2.6 J	<1.8	<1.8	<1.8	<1.8	1.6	0.43 J	2	<1.8	<2.7	<1.8	1.8	<5.3	<0.89	<0.89	<1.8			
	5/20/2019	50 - 55	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.3	<2.6	<2.6	<0.88	<5.3	<1.8	<1.8	<1.8	<1.8	<1.8	<0.88	<1.8	<1.8	<1.8	<2.6	<1.8	<0.88	<5.3	<0.88	<0.88	<1.8		
	5/20/2019	60 - 65	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.5	<2.5	<0.85	<5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<0.85	<1.7	<1.7	<1.7	<2.5	<1.7	<0.85	<5.1	<0.85	<0.85	<1.7		
	5/20/2019	70 - 75	<0.2	<0.6	<0.4	0.4	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.5	<2.5	<0.84	<5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<0.84	<1.7	<1.7	<1.7	<2.5	<1.7	<0.84	<5.1	<0.84	<0.84	<1.7		
	5/20/2019	80 - 85	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.86	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.86	<1.7	<1.7	<1.7	<2.6	<1.7	<0.86	<5.2	<0.86	<0.86	<1.7		
BOM-3	7/2/2019	45 - 50	0.4	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	1.1	<19	<19	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9		
	7/2/2019	55 - 60	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9		
	7/1/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	0.5	<0.3	<0.5	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8		
	7/1/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8		
	7/1/2019	85 - 90	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8		
BOM-4	6/3/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.1	<2.6	<2.6	0.57 J	2.4 J	<1.7	<1.7	<1.7	<1.7	<1.7	0.78 J	0.55 J	0.92 J	<1.7	<2.6	1.4 J	2.5	<5.1	<0.86	<0.86	<1.7		
	6/3/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.6	<4.9	<2.5	<2.5	<0.82	<4.9	<1.6	<1.6	<1.6	<1.6	<1.6	<0.82	2.5	<1.6	<1.6	<2.5	0.43 J	0.3 J	<4.9	<0.82	<0.82	<1.6		
	6/3/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.6	<4.9	<2.5	<2.5	<0.82	<4.9	<1.6	<1.6	<1.6	<1.6	<1.6	<0.82	<1.6	<1.6	<1.6	<2.5	<1.6	<0.82	<4.9	<0.82	<0.82	<1.6		
	5/29/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.6	<2.6	<0.86	<5.1	<1.7	<1.7	<1.7	<1.7	<1.7	<0.86	<1.7	<1.7	<1.7	<2.6	<1.7	<0.86	<5.1	<0.86	<0.86	<1.7		
	5/29/2019	75 - 80	<0.2	<0.6	<0.2	0.4	<0.3	<0.2	<0.3	<0.5	0.18	<1	<1.7	<5.0	<2.5	<2.5	<0.83	<5.0	<1.7	<1.7	<1.7	<1.7	<1.7	<0.83	<1.7	<1.7	<1.7	<2.5	1.5 J	<0.83	<5.0	<0.83	<0.83	<1.7		
BOM-5	6/4/2019	40 - 45	<1	<1	<0.4	<0.3																														

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BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			SVOCs			Herbicide Metabolites				Chlorate	1,4-Dioxane	Perchlorate	PFAS																									
Well ID	Sample Date	Well Screen Interval	Bisphenol A ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Metolachlor Metabolite CGA-67125 ug/l	2-HydroxyAtrazine ug/l	Phenytoln (Dilantin) ug/l	Trichlorfon ug/l	Chlorate mg/l	1,4-Dioxane ug/l	Perchlorate ug/L	6:2FTS ng/l	8:2FTS ng/l	NEFOSSA ng/l	NMeFOSSA ng/l	PFBS ng/l	PFBA ng/l	PFDS ng/l	PFDA ng/l	PFDoA ng/l	PFHpS ng/l	PFHpA ng/l	PFHxS ng/l	PFHxA ng/l	PFNA ng/l	FOSA ng/l	PFOS ng/l	PFOA ng/l	PFPeA ng/l	PFTeA ng/l	PFTrIA ng/l	PFUnA ng/l					
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Drinking Water Standard Subpart 5-1 (MCL)			50	50	50	50	50	50	50	-	1	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	10	50,000	50,000	50,000	50,000	50,000				
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
BOM-11	5/13/2019	35 - 40	<0.2	<0.6	<0.4	0.7	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.4	<2.7	<2.7	1.1	4.3 J	<1.8	<1.8	<1.8	0.40 J	3.9	2	5.6	<1.8	<2.7	2	11	5.1 J	<0.90	<0.90	<1.8					
	5/13/2019	45 - 50	<0.2	<0.6	<0.4	0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.3	<2.6	<2.6	1.3	2 J	<1.8	<1.8	<1.8	<1.8	1.3	1.6 J	2.5	0.60 J	<2.6	1.7 J	2.3	2.9 J	<0.88	<0.88	<1.8					
	5/6/2019	55 - 60	<0.2	<0.6	<0.4	0.3	<0.3	<0.2	<0.3	<1.25	<0.1	<1	<20	<20	<20	<20	0.26 J	0.80 J	<2.0	0.38 J	<2.0	0.33 J	0.72 J	0.60 J	0.37 J	<2.0	<2	<2	0.72 J	<2.0	<2.0	<2.0						
	5/7/2019	65 - 70	<0.2	<0.6	<0.4	0.4	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	<1.9	0.53 J	<1.9	<1.9	<1.9	<1.9	<1.9	0.28 J	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9						
	5/7/2019	75 - 80	<0.2	<0.6	<0.4	0.6	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<20	<20	<20	<20	<2.0	0.42 J	<2.0	<2.0	<2.0	<2.0	<2.0	0.28 J	<2.0	<2.0	<2.0	<2	<2	<2.0	<2.0	<2.0						
BOM-12	5/14/2019	35 - 40	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.2	<2.6	<2.6	0.80 J	<5.2	<1.7	<1.7	<1.7	<1.7	0.42 J	0.81 J	<1.7	<1.7	<2.6	0.82 J	1	<5.2	<0.87	<0.87	<1.7					
	5/14/2019	45 - 50	<0.2	<0.6	Trace	0.5	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.7	<5.1	<2.6	<2.6	0.63 J	2.2 J	<1.7	<1.7	<1.7	<1.7	0.73 J	0.51 J	0.82 J	<1.7	<2.6	1.1 J	1.9	<5.1	<0.85	<0.85	<1.7					
	5/14/2019	55 - 60	<0.2	<0.6	0.4	0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.5	<2.7	<2.7	<0.91	2.8 J	<1.8	<1.8	<1.8	<1.8	<0.91	0.50 J	<1.8	<1.8	<2.7	<1.8	0.84 J	<5.5	<0.91	<0.91	<1.8					
	5/13/2019	65 - 70	<0.2	<0.6	0.4	0.6	<0.3	<0.2	<0.3	<0.5	<0.1	<1	2.5	<5.1	<2.5	<2.5	<0.85	<5.1	<1.7	<1.7	<1.7	<1.7	<0.85	<1.7	<1.7	<1.7	<2.5	1 J	<0.85	<5.1	<0.85	<0.85	<1.7					
	5/13/2019	75 - 80	<0.2	<0.6	Trace	0.8	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	<0.87	<5.2	<1.7	<1.7	<1.7	<1.7	<1.7	<0.87	<1.7	<1.7	<2.6	<1.7	<0.87	<5.2	<0.87	<0.87	<1.7					
BOM-13	6/3/2019	35 - 40	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	18.6	<1.8	<5.3	<2.6	<2.6	2.2	9.2	<1.8	<1.8	<1.8	<1.8	2.6	0.96 J	5.7	0.59 J	<2.6	2.3	4.2	4 J	<0.88	<0.88	<1.8					
	5/22/2019	45 - 50	<0.2	<0.6	<0.2	0.4	<0.3	<0.2	<0.3	<0.05	<0.1	2.3	1.7 J	<5.4	<2.7	<2.7	1.8	6.3	<1.8	<1.8	<1.8	0.56 J	3.7	11	11	0.47 J	<2.7	75	7	11	<0.89	<0.89	<1.8					
	5/22/2019	55 - 60	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	8.3	<1.8	<5.4	<2.7	<2.7	1.6	5.5	<1.8	<1.8	<1.8	<1.8	4.1	7.7	8.3	0.49 J	<2.7	38	6.2	7.4	<0.91	<0.91	<1.8					
	5/22/2019	65 - 70	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	10.3	<1.7	<5.1	<2.6	<2.6	0.62 J	2.2 J	<1.7	<1.7	<1.7	<1.7	1	5.4	3	<1.7	<2.6	11	1.8	2.3 J	<0.86	<0.86	<1.7					
	5/22/2019	75 - 80	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1	2.2	1.2 J	<5.4	<2.7	<2.7	<0.90	<5.4	<1.8	<1.8	<1.8	<1.8	<0.90	1.2 J	<1.8	<1.8	<2.7	4.7	<0.90	<5.4	<0.90	<0.90	<1.8					
BOM-14	5/8/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<1.7	<1.7	<1.7	1.2 J	2.3	<1.8	<1.8	<1.8	<1.8	2.2	7.9	2	<1.8	<1.8	2.6	8	1.1 J	<1.8	<1.8	<1.8					
	5/8/2019	45 - 50	<0.2	<0.6	<0.4	0.4	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<1.8	<1.8	<1.8	1.1 J	1.8	<1.8	<1.8	<1.8	<1.8	3.8	2	2.9	<1.8	<1.8	<1.8	3.1	2.9	<1.8	<1.8	<1.8					
	5/8/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<1.8	<1.8	<1.8	1.3 J	1.4 J	<1.8	<1.8	<1.8	<1.8	2.4	0.89 J	2.4	<1.8	<1.8	<1.8	1.8	2.5	<1.8	<1.8	<1.8					
	5/7/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<1.8	<1.8	<1.8	2.7	2	<1.8	<1.8	<1.8	<1.8	1.7 J	1.3 J	2.4	<1.8	<1.8	<1.8	2.9	2.6	<1.8	<1.8	<1.8					
	5/7/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	0.28 J	<1.8	<1.8	<1.8	<1.8	<1.8	0.26 J	<1.8	<1.8						
BOM-15	5/13/2019	25 - 30	<0.2	<0.6	<0.4	<0.3	0.3	<0.2	<0.3	<0.5	<0.1	<1	<1.8	<5.3	<2.7	<2.7	1.4	2.0 J	<1.8	<1.8	<1.8	<1.8	2.4	1.9	3.4	<1.8	<2.7	<1.8	0.8 J	2.5 J	<0.89	<0.89	<1.8					
	5/13/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1.7	<5.2	<2.6	<2.6	0.36 J	<5.2	<1.7	<1																		

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			SVOCs			Herbicide Metabolites				Chlorate	1,4-Dioxane	Perch- lorate	PFAS																					
Well ID	Sample Date	Well Screen Interval	Bisphenol A ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Metolachlor Metabolite CGA-67125 ug/l	2-HydroxyAtrazine ug/l	Phenytoln (Dilantin) ug/l	Trichlorfon ug/l	Chlorate mg/l	1,4-Dioxane ug/l	Perchlorate ug/L	6:2FTS ng/l	8:2FTS ng/l	NEtFOSSA ng/l	NMeFOSSA ng/l	PFBS ng/l	PFBA ng/l	PFDS ng/l	PFDA ng/l	PFDoA ng/l	PFHpS ng/l	PFHpA ng/l	PFHxS ng/l	PFHxA ng/l	PFNA ng/l	FOSA ng/l	PFOS ng/l	PFOA ng/l	PFPeA ng/l	PFTeA ng/l	PFTrIA ng/l	PFUnA ng/l	
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drinking Water Standard Subpart 5-1 (MCL)			50	50	50	50	50	50	50	-	1	-	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	10	50,000	50,000	50,000	50,000	50,000
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BOM-21	4/30/2019	35 - 40	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<1.25	<0.1	<1	<19	<19	<19	<19	1.05 J	4.4	<1.9	<1.9	<1.9	0.59 J	12	12	4.8	0.36 J	<1.9	4.2	21	3.9	0.28 J	<1.9	<1.9	<1.9
	4/30/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	0.2	<1	<19	<19	<19	<19	1.4 J	4.6	<1.9	<1.9	<1.9	0.52 J	11	11	5	0.49 J	<1.9	3.9	20	3.8	<1.9	<1.9	<1.9	
	4/29/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<18	<18	<18	<18	15	5.5	<1.8	<1.8	<1.8	6.4	5.1	110	8.6	1.2 J	<1.8	180	12	5.9	<1.8	<1.8	<1.8	
	4/29/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	26	5	<1.9	<1.9	<1.9	8.2	7.6	160	14	1.3 J	<1.9	190	16	10	<1.9	<1.9	<1.9	
	4/25/2019	75 - 80	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<2.5	<0.1	<1	<19	<19	<19	<19	23	5	<1.9	<1.9	<1.9	3	4.4	85	7.6	0.97 J	<1.9	64	11	5.5	<1.9	<1.9	<1.9	
BOM-22	4/25/2019	35 - 40	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<1.25	<0.1	<1	25	<20	<20	<20	0.73 J	19	<2.0	<2.0	<2.0	0.72 J	17	28	32	0.93 J	<2.0	13	6.3	44	<2.0	<2.0	<2.0	
	4/24/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<2.5	<0.1	<1	<19	<19	<19	<19	2.2	1.7 J	<1.9	<1.9	<1.9	0.24 J	1.4 J	11	2.6	0.43 J	<1.9	5	2.5	1.3 J	<1.9	<1.9	<1.9	
	4/24/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	5.8	4	<1.9	0.30 J	<1.9	0.44 J	3.5	29	<1.9	1.3 J	<1.9	12	13	2.3	<1.9	<1.9	<1.9	
	4/24/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	6	3.5	<1.9	<1.9	<1.9	1.2 J	5.3	70	6.5	1.1 J	<1.9	42	9.3	2.6	<1.9	<1.9	<1.9	
			<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<20	<20	<20	<20	5.9	3.6	<2.0	<2.0	<2.0	1.4 J	5.2	70	6.4	1.0 J	<2.0	39	9.6	2.7	<2.0	<2.0	<2.0	
4/24/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	6.8	4.1	<1.9	1.1 J	0.83 J	1.6 J	4.6	110	6	1.2 J	<1.9	38	9.9	4.2	0.40 J	<1.9	<1.9		
4/23/2019	85 - 90	<0.2	<0.6	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	3.9	3.6	<1.9	<1.9	<1.9	0.92 J	6.6	34	<1.9	0.93 J	<1.9	50	7.9	<1.9	<1.9	<1.9	<1.9		
BOM-23	7/11/2019	40 - 45	<0.2	0.6	<0.2	<0.3	<0.3	1	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	<1.9	5	<1.9	<1.9	<1.9	<1.9	6.1	9.3	8.4	<1.9	<1.9	13	7.2	7.7	<1.9	<1.9	<1.9	
	7/11/2019	50 - 55	<0.2	<0.6	<0.2	<0.3	<0.3	0.6	<0.3	<0.5	<0.1	8.2	<19	<19	<19	<19	<1.9	2.4	<1.9	<1.9	<1.9	<1.9	3.7	6.4	<1.9	<1.9	<1.9	7.2	10	<1.9	<1.9	<1.9	<1.9	
	7/10/2019	60 - 65	<0.2	Trace	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1	<1	<20	<20	<20	<20	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5.7	<2.0	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	<2.0	<2.0
	7/10/2019	70 - 75	0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	5.6	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	
	7/10/2019	80 - 85	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	3.1	1.9	<1.9	<1.9	<1.9	<1.9	2	9	<1.9	<1.9	<1.9	2.5	5.4	<1.9	<1.9	<1.9	<1.9	
	7/8/2019	90 - 95	0.4	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	3.2	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	8	<1.9	<1.9	<1.9	2.2	6.2	<1.9	<1.9	<1.9	<1.9
	7/8/2019	100 - 105	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	5.6	<1.8	<1.8	<1.8	<1.8	3.4	<1.8	<1.8	<1.8	<1.8
	7/8/2019	110 - 115	<0.2	<0.6	<0.2	<0.3	<0.3	1	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	7.4	<1.9	<1.9	<1.9	2.4	4.3	<1.9	<1.9	<1.9	<1.9
	7/2/2019	120 - 125	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<18	<18	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	
	7/2/2019	130 - 135	<0.2	<0.6	<0.2	<0.3	<0.3	0.3	<0.3																									

Suffolk County Department of Health Services
BOMARC Groundwater Investigation - Summary of Detected Analytes

Well Information			SVOCs			Herbicide Metabolites				Chlorate	1,4-Dioxane	Perch- lorate	PFAS																						
Well ID	Sample Date	Well Screen Interval	Bisphenol A ug/l	Dichlorvos ug/l	Diethyltoluamide (DEET) ug/l	Metolachlor Metabolite CGA-67125 ug/l	2-HydroxyAtrazine ug/l	Phenytoln (Dilantin) ug/l	Trichlorfon ug/l	Chlorate mg/l	1,4-Dioxane ug/l	Perchlorate ug/L	6:2FTS ng/l	8:2FTS ng/l	NEtFOSAA ng/l	NMeFOSSA ng/l	PFBS ng/l	PFBA ng/l	PFDS ng/l	PFDA ng/l	PFDoA ng/l	PFHpS ng/l	PFHpA ng/l	PFHxS ng/l	PFHxA ng/l	PFNA ng/l	FOSA ng/l	PFOS ng/l	PFOA ng/l	PFPeA ng/l	PFTeA ng/l	PFTrIA ng/l	PFUnA ng/l		
DEC TOGS 1.1.1 Guidance Values			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
DEC Part 703 Class GA Groundwater Standards			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Drinking Water Standard Subpart 5-1 (MCL)			50	50	50	50	50	50	50	-	1	-	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	10	10	50,000	50,000	50,000	50,000		
New York State Department of Health Action Level			-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
BOM-28	4/24/2019	35 - 40	<0.2	<0.5	<0.4	<0.3	<0.3	<0.2	<0.3	<0.5	<0.1	<1	<19	<19	<19	<19	8.2	3.6	<1.9	<1.9	<1.9	0.26 J	<1.9	8	3.5	0.56 J	<1.9	3.7	9.7	3	<1.9	<1.9	<1.9		
	4/24/2019	45 - 50	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	9	3.9	<1.9	<1.9	<1.9	<1.9	3	8.6	3.6	0.61 J	<1.9	3.4	10	3.2	<1.9	<1.9	<1.9		
	4/24/2019	55 - 60	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	20	3.3	<1.9	<1.9	<1.9	<1.9	2.4	7.1	1.7 J	0.76 J	<1.9	1.7 J	5	1.7 J	<1.9	<1.9	<1.9		
	4/23/2019	65 - 70	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<19	<19	<19	<19	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	0.31 J	<1.9	<1.9	<1.9	<1.9	<1.9	0.30 J	<1.9	<1.9		
	4/23/2019	75 - 80	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	2.9 J	<19	<19	<19	<1.9	0.48 J	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	0.29 J	<1.9	<1.9	0.81 J	<1.9	<1.9	0.32 J	<1.9	<1.9	
	4/23/2019	85 - 90	<0.2	<0.5	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	<1	<1	<19	<19	<19	<19	<1.9	0.75 J	<1.9	<1.9	<1.9	<1.9	<1.9	0.31 J	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	0.48 J	<1.9	<1.9	
BOM-29	10/3/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1	No Samples																							
	10/3/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	10/2/2019	65 - 70	0.2	<0.6	<0.2	0.3	<0.3	0.4	<0.3	<0.05	<0.1																								
	10/2/2019	75 - 80	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	10/2/2019	85 - 90	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
BOM-30	10/1/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	0.3	<0.3	<0.05	<0.1	No Samples																							
	10/1/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/1/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	0.3	<0.3	<0.05	<0.1																								
	9/30/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	9/30/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	9/30/2019	85 - 90	<0.2	<0.6	<0.2	0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
BOM-31	10/2/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	0.4	<0.3	<2.50	<0.1	No Samples																							
	10/1/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/1/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/1/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	9/30/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.2																								
	9/30/2019	85 - 90	<0.1	<0.1	<0.4	<0.3	<0.3	<0.2	<0.3	<0.05	<0.5																								
BOM-32	10/7/2019	35 - 40	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	No Samples																							
	10/7/2019	45 - 50	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/7/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/3/2019	65 - 70	<0.2	<0.6	<0.2	<0.3	<0.3	0.2	<0.3	<0.05	<0.1																								
	10/2/2019	75 - 80	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
	10/2/2019	85 - 90	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1																								
BOM-33	9/30/2019	50 - 55	<0.2	<0.6	<0.2	<0.3	<0.3	0.5	<0.3	<0.3	<0.2	No Samples																							
BOM-34	10/8/2019	55 - 60	<0.2	<0.6	<0.2	<0.3	<0.3	<0.2	<0.3	<0.05	<0.1	No Samples																							

Note: NR - Analyte result not reported
In August 2020 the individual NYSDOH drinking water standard of 10 ng/l for PFOS and PFOA became effective.



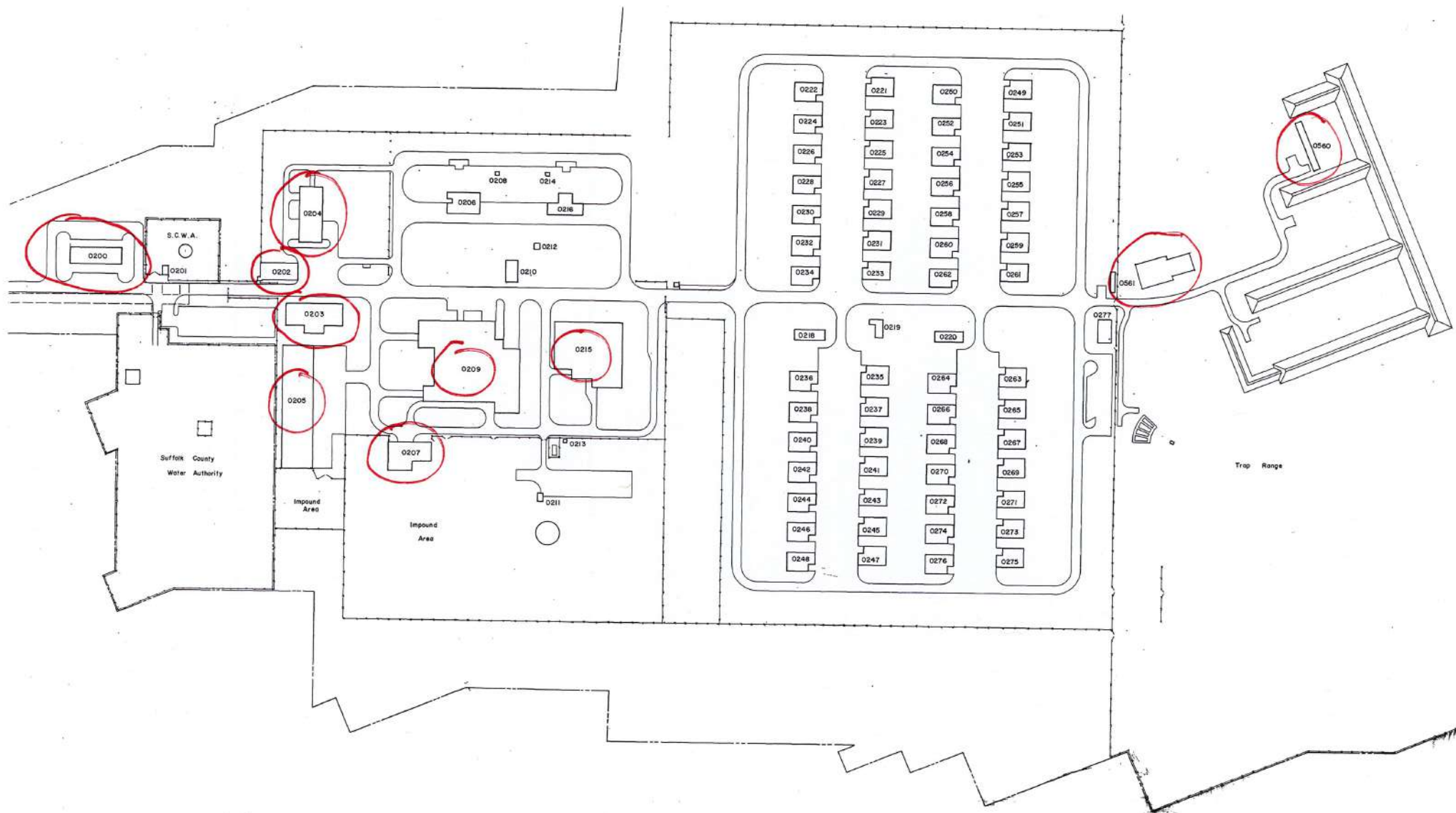
Exceeds a Standard, Guidance Value and/or Action Level.

Appendix G

Occupied Buildings at the

BOMARC Facility

BOMARC SITE - WESTHAMPTON, NY



○ ≡ BOMARC BLDGS THAT ARE OCCUPIED WITH ONE OR MORE PERSONS.
 NOTE: THERE ARE MANY BUILDINGS (SILOS) IN USE THAT ARE NOT "OCCUPIED" BY PEOPLE.

BUILDINGS WHERE LAD = 61

Wednesday, July 22, 2020

Building No.	Name	Location	Start Date	Expire Date	Square FT
C0200	SHERIFF TRAINING	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			4,034
C0201	DPW PUMP STATION	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			140
C0202	STORAGE / CUSTODIAL	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			2,966
C0203	EVOC BLDG	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			6,600
C0204	DPW GARAGE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			6,000
C0205	HWY VEHICLE STORAGE & GARAGE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			15,600
C0206	WEIGHTS & MEASURES STORAGE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			3,720
C0207	POLICE GARAGE / IMPOUND AREA	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			4,438
C0208	BOMARC PUMP HOUSE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			88
C0209	RECORD STORAGE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			33,910
C0210	BOMARC POLICE SHOWER/STORAGE BLDG	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			1,104
C0211	BOMARC DPW PUMP HOUSE OIL	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			358
C0212	PUMP HOUSE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			150
C0213	BOMARC POLICE PUMP HOUSE PROPANE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			88
C0214	PUMP HOUSE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			88
C0215	DPW MAINTENANCE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			27,730
C0216	TRANSPORTATION	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			2,745
C0217	BOMARC GATE HOUSE (VACATED)	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			80
C0218	BOMARC DPW OPERATIONS & MAINTENANCE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			1,776
C0219	BOMARC POLICE BOMB SQUAD	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			941
C0220	BOMARC WAREHOUSE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			1,776
C0221	BOMARC MISSILE SILO - SHERIFF	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			1,888
C0222	BOMARC POLICE DEPT	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			1,888

Currently Occupied Buildings are Highlighted in Yellow.

SUFFOLK COUNTY DEPARTMENT OF PUBLIC WORKS

Page 2 of 4

BUILDINGS WHERE LAD = 61

Wednesday, July 22, 2020

Building No.	Name	Location	Start Date	Expire Date	Square FT
C0223	BOMARC MISSILE SILO PUBLIC WORKS	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0224	BOMARC MISSILE SILO DPW HIGHWAY	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0225	BOMARC MISSILE SILO CORNELL	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			1,888
C0226	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0227	BOMARC MISSILE SILO PUBLIC WORKS	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0228	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0229	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0230	BOMARC MISSILE SILO PUBLIC WORKS	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0231	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0232	BOMARC MISSILE SILO HEALTH	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0233	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0234	BOMARC MISSILE SILO HEALTH	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0235	BOMARC MISSILE SILO SHERIFF	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0236	BOMARC MISSILE SILO SHERIFF	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0237	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0238	BOMARC MISSILE SILO SHERIFF	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0239	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0240	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0241	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0242	BOMARC MISSILE SILO SHERIFF	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0243	BOMARC MISSILE SILO DPW VECTOR	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0244	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0245	BOMARC MISSILE SILO POLICE DEPARTMENT Q	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888

Currently Occupied Buildings are Highlighted in Yellow.

SUFFOLK COUNTY DEPARTMENT OF PUBLIC WORKS

Page 3 of 4

BUILDINGS WHERE LAD = 61

Wednesday, July 22, 2020

Building No.	Name	Location	Start Date	Expire Date	Square FT
C0246	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0247	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0248	BOMARC MISSILE SILO PUBLIC WORKS	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0249	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0250	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0251	BOMARC MISSILE SILO NOT ASSIGNED	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0252	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0253	BOMARC MISSILE SILO PUBLIC WORKS	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0254	BOMARC MISSILE SILO PUBLIC WORKS	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0255	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0256	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0257	BOMARC MISSILE SILO SHERIFF	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0258	BOMARC MISSILE SILO FBI	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0259	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0260	BOMARC MISSILE YOUTH CONSER	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0261	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0262	BOMARC MISSILE YOUTH CONSER	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0263	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0264	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0265	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0266	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0267	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0268	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888

Currently Occupied Buildings are Highlighted in Yellow.

BUILDINGS WHERE LAD = 61

Wednesday, July 22, 2020

Building No.	Name	Location	Start Date	Expire Date	Square FT
C0269	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0270	BOMARC MISSILE SILO POLICE DEPARTMENT	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0271	BOMARC MISSILE SILO SOCIAL SERVICES	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0272	BOMARC MISSILE SILO SCPD	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0273	BOMARC MISSILE SILO DISTRICT ATTORNEY	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0274	BOMARC MISSILE SILO DISTRICT ATTORNEY	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0275	BOMARC MISSILE SILO SHERIFFS DEPARTMEN	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0276	BOMARC MISSILE SILO DISTRICT ATTORNEY	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,888
C0277	POLICE FIRING RANGE	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			1,473
C0278	IMPOUND TRAILER	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,500
C0557	SAND GRADER	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			88
C0558	GUARD SHACK	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			64
C0559	FIRING RANGE - CONTROL BLDG	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			40
C0560	FIRING RANGE - PISTOL	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,568
C0561	FIRING RANGE TRAILER OFFICE	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			720
C0960	NEW RANGE BUILDING	BOMARC 110 OLD COUNTRY RD WESTHAMPTON NY, 11978			5,707
C1011	IMPOUND OFFICE	BOMARC 110 OLD COUNRTY RD WESTHAMPTON NY, 11978			1,650

Total:	232,870

Currently Occupied Buildings are Highlighted in Yellow.

ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S2 **Lab ID: 7087818002** Collected: 04/30/19 09:50 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	12674-11-2	
PCB-1221 (Aroclor 1221)	<1390	ug/kg	1390	20	05/02/19 13:48	05/08/19 19:38	11104-28-2	
PCB-1232 (Aroclor 1232)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	11141-16-5	
PCB-1242 (Aroclor 1242)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	53469-21-9	
PCB-1248 (Aroclor 1248)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	12672-29-6	
PCB-1254 (Aroclor 1254)	4300	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	11097-69-1	
PCB-1260 (Aroclor 1260)	<683	ug/kg	683	20	05/02/19 13:48	05/08/19 19:38	11096-82-5	
PCB, Total	4300	ug/kg	1390	20	05/02/19 13:48	05/08/19 19:38	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	97	%	30-150	20	05/02/19 13:48	05/08/19 19:38	877-09-8	
Decachlorobiphenyl (S)	126	%	30-150	20	05/02/19 13:48	05/08/19 19:38	2051-24-3	

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	83-32-9	
Anthracene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	120-12-7	
Benzo(a)anthracene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	56-55-3	
Benzo(a)pyrene	77.5	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	50-32-8	
Benzo(b)fluoranthene	111	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	205-99-2	
Benzo(g,h,i)perylene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	191-24-2	L1
Benzo(k)fluoranthene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	207-08-9	
Chrysene	73.9	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	218-01-9	
Dibenz(a,h)anthracene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	53-70-3	
Dibenzofuran	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	132-64-9	
Fluoranthene	119	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	206-44-0	
Fluorene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	86-73-7	
Indeno(1,2,3-cd)pyrene	<69.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	193-39-5	
Phenanthrene	77.7	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	85-01-8	
Pyrene	127	ug/kg	69.7	1	05/03/19 10:30	05/08/19 20:44	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	54	%	23-120	1	05/03/19 10:30	05/08/19 20:44	4165-60-0	
2-Fluorobiphenyl (S)	54	%	30-115	1	05/03/19 10:30	05/08/19 20:44	321-60-8	
p-Terphenyl-d14 (S)	74	%	18-137	1	05/03/19 10:30	05/08/19 20:44	1718-51-0	
Phenol-d5 (S)	53	%	24-113	1	05/03/19 10:30	05/08/19 20:44	4165-62-2	
2-Fluorophenol (S)	51	%	25-121	1	05/03/19 10:30	05/08/19 20:44	367-12-4	
2,4,6-Tribromophenol (S)	60	%	19-122	1	05/03/19 10:30	05/08/19 20:44	118-79-6	
2-Chlorophenol-d4 (S)	51	%	20-130	1	05/03/19 10:30	05/08/19 20:44	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	39	%	20-130	1	05/03/19 10:30	05/08/19 20:44	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	5.7	%	0.10	1		05/07/19 18:06		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S3 **Lab ID: 7087818003** Collected: 04/30/19 10:15 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Analytical Method: EPA 8270D Preparation Method: EPA 3545A								
Acenaphthene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	83-32-9	
Anthracene	629	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	120-12-7	
Benzo(a)anthracene	986	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	56-55-3	
Benzo(a)pyrene	435	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	50-32-8	
Benzo(b)fluoranthene	536	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	205-99-2	
Benzo(g,h,i)perylene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	191-24-2	L1
Benzo(k)fluoranthene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	207-08-9	
Chrysene	1240	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	218-01-9	
Dibenz(a,h)anthracene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	53-70-3	
Dibenzofuran	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	132-64-9	
Fluoranthene	1080	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	206-44-0	
Fluorene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	86-73-7	
Indeno(1,2,3-cd)pyrene	<289	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	193-39-5	
Phenanthrene	6700	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	85-01-8	
Pyrene	2790	ug/kg	289	1	05/03/19 10:30	05/07/19 18:21	129-00-0	
Surrogates								
Nitrobenzene-d5 (S)	33	%	23-120	1	05/03/19 10:30	05/07/19 18:21	4165-60-0	
2-Fluorobiphenyl (S)	43	%	30-115	1	05/03/19 10:30	05/07/19 18:21	321-60-8	
p-Terphenyl-d14 (S)	59	%	18-137	1	05/03/19 10:30	05/07/19 18:21	1718-51-0	
Phenol-d5 (S)	48	%	24-113	1	05/03/19 10:30	05/07/19 18:21	4165-62-2	
2-Fluorophenol (S)	44	%	25-121	1	05/03/19 10:30	05/07/19 18:21	367-12-4	
2,4,6-Tribromophenol (S)	45	%	19-122	1	05/03/19 10:30	05/07/19 18:21	118-79-6	
2-Chlorophenol-d4 (S)	40	%	20-130	1	05/03/19 10:30	05/07/19 18:21	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	32	%	20-130	1	05/03/19 10:30	05/07/19 18:21	2199-69-1	

Percent Moisture Analytical Method: ASTM D2216-92M

Percent Moisture	76.9	%	0.10	1		05/07/19 18:07

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S16 **Lab ID: 7087818016** Collected: 05/01/19 10:05 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	12674-11-2	
PCB-1221 (Aroclor 1221)	<84100	ug/kg	84100	1000	05/02/19 13:48	05/08/19 20:59	11104-28-2	
PCB-1232 (Aroclor 1232)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11141-16-5	
PCB-1242 (Aroclor 1242)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	53469-21-9	
PCB-1248 (Aroclor 1248)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	12672-29-6	
PCB-1254 (Aroclor 1254)	449000	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11097-69-1	
PCB-1260 (Aroclor 1260)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11096-82-5	
PCB, Total	449000	ug/kg	84100	1000	05/02/19 13:48	05/08/19 20:59	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 20:59	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 20:59	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	6120	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	83-32-9	
Anthracene	10200	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	120-12-7	
Benzo(a)anthracene	25100	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	56-55-3	
Benzo(a)pyrene	19800	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	50-32-8	
Benzo(b)fluoranthene	31700	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	205-99-2	
Benzo(g,h,i)perylene	6730	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	191-24-2	CH,L1
Benzo(k)fluoranthene	14900	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	207-08-9	
Chrysene	26800	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	218-01-9	
Dibenz(a,h)anthracene	2670	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	53-70-3	
Dibenzofuran	<1680	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	132-64-9	
Fluoranthene	55100	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	206-44-0	
Fluorene	5760	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	86-73-7	
Indeno(1,2,3-cd)pyrene	7770	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	193-39-5	
Phenanthrene	59700	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	85-01-8	
Pyrene	60600	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	47	%	23-120	20	05/03/19 10:30	05/09/19 00:53	4165-60-0	
2-Fluorobiphenyl (S)	63	%	30-115	20	05/03/19 10:30	05/09/19 00:53	321-60-8	
p-Terphenyl-d14 (S)	77	%	18-137	20	05/03/19 10:30	05/09/19 00:53	1718-51-0	
Phenol-d5 (S)	49	%	24-113	20	05/03/19 10:30	05/09/19 00:53	4165-62-2	
2-Fluorophenol (S)	60	%	25-121	20	05/03/19 10:30	05/09/19 00:53	367-12-4	
2,4,6-Tribromophenol (S)	60	%	19-122	20	05/03/19 10:30	05/09/19 00:53	118-79-6	
2-Chlorophenol-d4 (S)	57	%	20-130	20	05/03/19 10:30	05/09/19 00:53	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	41	%	20-130	20	05/03/19 10:30	05/09/19 00:53	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	21.5	%	0.10	1		05/08/19 17:15		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S16 **Lab ID: 7087818016** Collected: 05/01/19 10:05 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	12674-11-2	
PCB-1221 (Aroclor 1221)	<84100	ug/kg	84100	1000	05/02/19 13:48	05/08/19 20:59	11104-28-2	
PCB-1232 (Aroclor 1232)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11141-16-5	
PCB-1242 (Aroclor 1242)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	53469-21-9	
PCB-1248 (Aroclor 1248)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	12672-29-6	
PCB-1254 (Aroclor 1254)	449000	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11097-69-1	
PCB-1260 (Aroclor 1260)	<41400	ug/kg	41400	1000	05/02/19 13:48	05/08/19 20:59	11096-82-5	
PCB, Total	449000	ug/kg	84100	1000	05/02/19 13:48	05/08/19 20:59	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 20:59	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 20:59	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	6120	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	83-32-9	
Anthracene	10200	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	120-12-7	
Benzo(a)anthracene	25100	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	56-55-3	
Benzo(a)pyrene	19800	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	50-32-8	
Benzo(b)fluoranthene	31700	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	205-99-2	
Benzo(g,h,i)perylene	6730	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	191-24-2	CH,L1
Benzo(k)fluoranthene	14900	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	207-08-9	
Chrysene	26800	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	218-01-9	
Dibenz(a,h)anthracene	2670	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	53-70-3	
Dibenzofuran	<1680	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	132-64-9	
Fluoranthene	55100	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	206-44-0	
Fluorene	5760	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	86-73-7	
Indeno(1,2,3-cd)pyrene	7770	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	193-39-5	
Phenanthrene	59700	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	85-01-8	
Pyrene	60600	ug/kg	1680	20	05/03/19 10:30	05/09/19 00:53	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	47	%	23-120	20	05/03/19 10:30	05/09/19 00:53	4165-60-0	
2-Fluorobiphenyl (S)	63	%	30-115	20	05/03/19 10:30	05/09/19 00:53	321-60-8	
p-Terphenyl-d14 (S)	77	%	18-137	20	05/03/19 10:30	05/09/19 00:53	1718-51-0	
Phenol-d5 (S)	49	%	24-113	20	05/03/19 10:30	05/09/19 00:53	4165-62-2	
2-Fluorophenol (S)	60	%	25-121	20	05/03/19 10:30	05/09/19 00:53	367-12-4	
2,4,6-Tribromophenol (S)	60	%	19-122	20	05/03/19 10:30	05/09/19 00:53	118-79-6	
2-Chlorophenol-d4 (S)	57	%	20-130	20	05/03/19 10:30	05/09/19 00:53	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	41	%	20-130	20	05/03/19 10:30	05/09/19 00:53	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	21.5	%	0.10	1		05/08/19 17:15		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S17 **Lab ID: 7087818017** Collected: 05/01/19 10:40 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	12674-11-2	
PCB-1221 (Aroclor 1221)	<2440000	ug/kg	2440000	25000	05/02/19 13:48	05/10/19 02:53	11104-28-2	
PCB-1232 (Aroclor 1232)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	11141-16-5	
PCB-1242 (Aroclor 1242)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	53469-21-9	
PCB-1248 (Aroclor 1248)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	12672-29-6	
PCB-1254 (Aroclor 1254)	9560000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	11097-69-1	
PCB-1260 (Aroclor 1260)	<1200000	ug/kg	1200000	25000	05/02/19 13:48	05/10/19 02:53	11096-82-5	
PCB, Total	9560000	ug/kg	2440000	25000	05/02/19 13:48	05/10/19 02:53	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 21:13	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	1000	05/02/19 13:48	05/08/19 21:13	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<974	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	83-32-9	
Anthracene	1200	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	120-12-7	
Benzo(a)anthracene	4340	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	56-55-3	
Benzo(a)pyrene	3480	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	50-32-8	
Benzo(b)fluoranthene	6540	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	205-99-2	
Benzo(g,h,i)perylene	1340	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	191-24-2	L1
Benzo(k)fluoranthene	2530	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	207-08-9	
Chrysene	5050	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	218-01-9	
Dibenz(a,h)anthracene	<974	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	53-70-3	
Dibenzofuran	<974	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	132-64-9	
Fluoranthene	8900	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	206-44-0	
Fluorene	<974	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	86-73-7	
Indeno(1,2,3-cd)pyrene	1280	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	193-39-5	
Phenanthrene	7460	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	85-01-8	
Pyrene	10400	ug/kg	974	10	05/03/19 10:30	05/08/19 23:30	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	15	%	23-120	10	05/03/19 10:30	05/08/19 23:30	4165-60-0	S4
2-Fluorobiphenyl (S)	15	%	30-115	10	05/03/19 10:30	05/08/19 23:30	321-60-8	S4
p-Terphenyl-d14 (S)	33	%	18-137	10	05/03/19 10:30	05/08/19 23:30	1718-51-0	
Phenol-d5 (S)	17	%	24-113	10	05/03/19 10:30	05/08/19 23:30	4165-62-2	S4
2-Fluorophenol (S)	19	%	25-121	10	05/03/19 10:30	05/08/19 23:30	367-12-4	S4
2,4,6-Tribromophenol (S)	15	%	19-122	10	05/03/19 10:30	05/08/19 23:30	118-79-6	S4
2-Chlorophenol-d4 (S)	16	%	20-130	10	05/03/19 10:30	05/08/19 23:30	93951-73-6	S4
1,2-Dichlorobenzene-d4 (S)	11	%	20-130	10	05/03/19 10:30	05/08/19 23:30	2199-69-1	S4

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	31.8	%	0.10	1		05/08/19 17:17		

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S18 Lab ID: 7087818018 Collected: 05/01/19 12:00 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	12674-11-2	
PCB-1221 (Aroclor 1221)	<6990	ug/kg	6990	100	05/02/19 13:48	05/10/19 02:39	11104-28-2	
PCB-1232 (Aroclor 1232)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	11141-16-5	
PCB-1242 (Aroclor 1242)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	53469-21-9	
PCB-1248 (Aroclor 1248)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	12672-29-6	
PCB-1254 (Aroclor 1254)	7110	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	11097-69-1	
PCB-1260 (Aroclor 1260)	<3440	ug/kg	3440	100	05/02/19 13:48	05/10/19 02:39	11096-82-5	
PCB, Total	7110	ug/kg	6990	100	05/02/19 13:48	05/10/19 02:39	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	100	05/02/19 13:48	05/10/19 02:39	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	100	05/02/19 13:48	05/10/19 02:39	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	83-32-9	
Anthracene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	120-12-7	
Benzo(a)anthracene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	56-55-3	
Benzo(a)pyrene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	50-32-8	
Benzo(b)fluoranthene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	205-99-2	
Benzo(g,h,i)perylene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	191-24-2	L1
Benzo(k)fluoranthene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	207-08-9	
Chrysene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	218-01-9	
Dibenz(a,h)anthracene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	53-70-3	
Dibenzofuran	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	132-64-9	
Fluoranthene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	206-44-0	
Fluorene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	86-73-7	
Indeno(1,2,3-cd)pyrene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	193-39-5	
Phenanthrene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	85-01-8	
Pyrene	<70.7	ug/kg	70.7	1	05/03/19 10:30	05/08/19 23:03	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	60	%	23-120	1	05/03/19 10:30	05/08/19 23:03	4165-60-0	
2-Fluorobiphenyl (S)	60	%	30-115	1	05/03/19 10:30	05/08/19 23:03	321-60-8	
p-Terphenyl-d14 (S)	90	%	18-137	1	05/03/19 10:30	05/08/19 23:03	1718-51-0	
Phenol-d5 (S)	61	%	24-113	1	05/03/19 10:30	05/08/19 23:03	4165-62-2	
2-Fluorophenol (S)	59	%	25-121	1	05/03/19 10:30	05/08/19 23:03	367-12-4	
2,4,6-Tribromophenol (S)	63	%	19-122	1	05/03/19 10:30	05/08/19 23:03	118-79-6	
2-Chlorophenol-d4 (S)	57	%	20-130	1	05/03/19 10:30	05/08/19 23:03	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	39	%	20-130	1	05/03/19 10:30	05/08/19 23:03	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	6.2	%	0.10	1	05/08/19 17:18			

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ANALYTICAL RESULTS

Project: BOMARC - SOILS 5/1

Pace Project No.: 7087818

Sample: S22 Lab ID: 7087818022 Collected: 05/01/19 12:50 Received: 05/01/19 15:28 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Analytical Method: EPA 8082A Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	12674-11-2	
PCB-1221 (Aroclor 1221)	<1770	ug/kg	1770	10	05/02/19 13:48	05/08/19 20:46	11104-28-2	
PCB-1232 (Aroclor 1232)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	11141-16-5	
PCB-1242 (Aroclor 1242)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	53469-21-9	
PCB-1248 (Aroclor 1248)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	12672-29-6	
PCB-1254 (Aroclor 1254)	6070	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	11097-69-1	
PCB-1260 (Aroclor 1260)	<871	ug/kg	871	10	05/02/19 13:48	05/08/19 20:46	11096-82-5	
PCB, Total	6070	ug/kg	1770	10	05/02/19 13:48	05/08/19 20:46	1336-36-3	

Surrogates

Tetrachloro-m-xylene (S)	0	%	30-150	10	05/02/19 13:48	05/08/19 20:46	877-09-8	S4
Decachlorobiphenyl (S)	0	%	30-150	10	05/02/19 13:48	05/08/19 20:46	2051-24-3	S4

8270 MSSV

Analytical Method: EPA 8270D Preparation Method: EPA 3545A

Acenaphthene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	83-32-9	
Anthracene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	120-12-7	
Benzo(a)anthracene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	56-55-3	
Benzo(a)pyrene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	50-32-8	
Benzo(b)fluoranthene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	205-99-2	
Benzo(g,h,i)perylene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	191-24-2	
Benzo(k)fluoranthene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	207-08-9	
Chrysene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	218-01-9	
Dibenz(a,h)anthracene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	53-70-3	
Dibenzofuran	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	132-64-9	
Fluoranthene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	206-44-0	
Fluorene	679	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	86-73-7	
Indeno(1,2,3-cd)pyrene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	193-39-5	
Phenanthrene	421	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	85-01-8	
Pyrene	<182	ug/kg	182	1	05/13/19 16:05	05/15/19 12:27	129-00-0	

Surrogates

Nitrobenzene-d5 (S)	145	%	23-120	1	05/13/19 16:05	05/15/19 12:27	4165-60-0	S0
2-Fluorobiphenyl (S)	77	%	30-115	1	05/13/19 16:05	05/15/19 12:27	321-60-8	
p-Terphenyl-d14 (S)	98	%	18-137	1	05/13/19 16:05	05/15/19 12:27	1718-51-0	
Phenol-d5 (S)	80	%	24-113	1	05/13/19 16:05	05/15/19 12:27	4165-62-2	
2-Fluorophenol (S)	72	%	25-121	1	05/13/19 16:05	05/15/19 12:27	367-12-4	
2,4,6-Tribromophenol (S)	91	%	19-122	1	05/13/19 16:05	05/15/19 12:27	118-79-6	
2-Chlorophenol-d4 (S)	71	%	20-130	1	05/13/19 16:05	05/15/19 12:27	93951-73-6	
1,2-Dichlorobenzene-d4 (S)	65	%	20-130	1	05/13/19 16:05	05/15/19 12:27	2199-69-1	

Percent Moisture

Analytical Method: ASTM D2216-92M

Percent Moisture	63.2	%	0.10	1		05/08/19 17:22		

REPORT OF LABORATORY ANALYSIS

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APPENDIX D

TYPICAL STORM DRAIN DETAIL





APPENDIX E

UIC CHARACTERIZATION REPORT (2023)



BOMARC SITE
100 OLD COUNTRY ROAD
WESTHAMPTON, NEW YORK
NYSDEC SITE: 152262

UNDERGROUND INJECTION CONTROL CHARACTERIZATION REPORT

PREPARED FOR:

Suffolk County Department of Health Services
Office of Pollution Control
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Farmingville, New York 11738

PREPARED BY:



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SEPTEMBER 2023

**UNDERGROUND INJECTION CONTROL
CHARACTERIZATION REPORT
BOMARC SITE, WESTHAMPTON, NEW YORK**

TABLE OF CONTENTS	PAGE
1.0 INTRODUCTION.....	1
1.1 Site Description.....	1
2.0 PROJECT BACKGROUND	2
2.1 Site History	2
2.2 Previous Investigations.....	2
2.2.1 PWGC UIC Structure Sampling and Remediation (January 2014).....	2
2.2.2 BOMARC UIC Data Summary and UIC Remedial Cost Estimate (August 12, 2021)	3
2.3 Regional Geology/Hydrogeology.....	4
2.4 Site Features	4
2.5 Current and Future Site Use.....	4
3.0 FIELD INVESTIGATION.....	5
3.1 Geophysical Survey	5
3.1.1 Geophysical Methodology	5
3.1.2 Geophysical Findings.....	5
3.2 Characterization of UIC Structures	6
3.2.1 UIC Sampling Methodology.....	6
3.2.2 UIC Sample Analysis	7
3.2.3 UIC Sample Analytical Results.....	7
3.3 Former Burn Pit investigation	8
3.3.1 Investigation Findings.....	8
3.3.2 Burn Pit Sampling Methodology	8
3.3.3 Burn Pit Sample Analysis.....	9
3.3.4 Burn Pit Sample Analytical Results	9
4.0 CONCLUSIONS AND RECOMMENDATIONS	10
4.1 Conclusions.....	10
4.2 Recommendations.....	12
5.0 REFERENCES.....	13
6.0 LIMITATIONS.....	14



**UNDERGROUND INJECTION CONTROL
CHARACTERIZATION REPORT
BOMARC SITE, WESTHAMPTON, NEW YORK**

FIGURES

FIGURE 1	Site Location Map
FIGURE 2	Site Plan

TABLES

TABLE 1	Soil Sample Analytical Results – VOCs
TABLE 2	Soil Sample Analytical Results – SVOCs
TABLE 3	Soil Sample Analytical Results – Metals
TABLE 4	Soil Sample Analytical Results – PCBs

APPENDICES

APPENDIX A	Geophysical Survey Report
APPENDIX B	Laboratory Analytical Reports





1.0 INTRODUCTION

The Suffolk County Department of Health Services (SCDHS) has retained P.W. Grosser Consulting, Inc. (PWGC) to prepare this Characterization Report for underground injection control (UIC) structures at the BOMARC site in Westhampton, New York. Work was conducted in accordance with PWGC's August 2022 Interim Remedial Measure (IRM) Work Plan for the site, and in substantial conformance with the New York State Department of Environmental Conservation's (NYSDEC's) Division of Environmental Remediation's (DER's) Technical Guidance for Site Investigation and Remediation, May 2010 (DER-10).

1.1 Site Description

The Site is located at 100 Old Country Road, in the hamlet of Westhampton, New York. The Site is in the Town of Southampton, Suffolk County. The property is identified in the Suffolk County Tax Map as: 0900-331.00-01.00-Lot Nos. 001.100, and 002.000 through 015.000.

The Site measures approximately 186 acres in size and is located to the north of Old Country Road and west of Old Westhampton Road. The property includes 56 structures which originally housed BOMARC missiles, along with other structures utilized by Suffolk County. Large parking lots are also present at the site along with a police firing range. The Site is bounded to the north by undeveloped pine barrens, to the east by commercial/industrial land uses, to the south by Old Country Road, and to the west by recent residential development.

A Vicinity Map is included as **Figure 1**. A Site Plan is included as **Figure 2**.



2.0 PROJECT BACKGROUND

2.1 Site History

The former BOMARC Missile Base was operated by the US Air Force as one of 10 BOMARC facilities protecting the east coast from a potential Soviet air attack from 1959 until it was decommissioned in 1964. Fifty-six nuclear-tipped missiles were located at this facility which utilized tritium and required frequent maintenance (every 90 days). After decommissioning, the property was turned over to Suffolk County as surplus property in the 1960s.

2.2 Previous Investigations

The following investigations pertinent to this UIC IRM Work Plan were performed at the Site to determine if past activities had impacted the sediment within onsite UIC structures. Results of these Site investigations confirmed the presence of VOCs, SVOCs, metals above SCDHS Action Levels, and PCBs above New York State Department of Environmental Conservation (NYSDEC) Part 375 Unrestricted Use Soil Cleanup Objectives (UUSCOs) standards in sediments within UIC structures, requiring remediation at the Site.

2.2.1 PWGC UIC Structure Sampling and Remediation (January 2014)

During the Suffolk County Department of Public Works (SCDPW) UIC Maintenance Program, PWGC investigated the BOMARC property and identified several structures associated with the sitewide sanitary system, as well as several floor drains within the buildings on the property. Each of the accessible UIC structures were sampled in accordance with the SCDHS Standard Operating Procedure (SOP) 9-95 and analyzed for VOCs, SVOCs and metals. Two structures, UIC001 (primary cesspool of the sitewide sanitary system) and UIC004 (Building C0205 floor drain) exhibited levels of SVOCs and/or metals above SCDHS Action Levels.

The sitewide sanitary system consists of the primary cesspool, a septic tank, six junction boxes and three subsurface secondary cesspools located southwest of the primary cesspool. Correspondence between PWGC, SCDHS, and SCDPW personnel concluded that the sitewide sanitary system, due to its elevated levels of chromium (370 mg/kg) in the primary cesspool, should be remediated. In addition, SCDHS indicated that the floor drain located in Building C0205 should be remediated prior to abandonment.

Remediation of the sitewide sanitary system was performed in March 2014. Remedial effort included the following:

- Removal of impacted sediment from six solid bottom junction boxes throughout the site.
- Characterization samples collected from three overflow cesspools associated with the sitewide sanitary system. No impact above SCDHS Action Levels were detected in samples collected from the structures.
- Removal of impacted sediment from building C0205 floor drain.

- The March 2014 remediation was scheduled to include the sitewide sanitary system septic tank and primary cesspool; however, this was not completed at that time due to a water leak.

2.2.2 BOMARC UIC Data Summary and UIC Remedial Cost Estimate (August 12, 2021)

The SCDHS, under the directive of Resolution 1065-2018 of the Suffolk County Legislature, performed a limited site evaluation at the Site. A total of 25 locations were deemed areas of concern (AOC) based upon a walk-through and a review of historic information from department records. Impacts to UIC structures included presence of VOCs, SVOCs, heavy metals and polychlorinated biphenyls (PCBs) in exceedance of SCDHS Action Levels and/or NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) in seven UIC structures and/or discharge points. As there are no cleanup criteria for PCBs in the SCDHS SOP 9-95, PCB results were compared to NYSDEC UUSCOs. The presence of PCBs, and possibly other contaminants, may be indicative of legacy impacts occurring prior to Suffolk County ownership.

Summary of UIC Data for UICs Requiring Remediation

Structure ID	Description	Sample Date	Suffolk County SOP-9-95 Exceedance			UUSCOs Exceedance for PCBs?	Total PCBs (ppm)
			VOCs	SVOCs	Metals		
S-2	Storm Drain	4/30/19	No	No	No	Yes	4.3
S-3	Septic Tank	4/30/19	Yes	No	No	Yes	0.598
S-16	Floor Drain	5/1/19	Yes	Yes	Yes	Yes	593
S-16A*	Washout Area	N/A	N/A	N/A	N/A	N/A	N/A
S-17	Floor Drain	5/1/19	No	Yes	Yes	Yes	9,560
S-17OF	Floor Drain Discharge Point	3/23/21	No	No	No	Yes	1.59
S-17DW	Floor Drain Discharge Drywell	N/A	N/A	N/A	N/A	N/A	N/A
S-18	Floor Drain	5/1/19	No	No	No	Yes	7.11
S-22	Former Burn Pits	5/1/19	Yes	No	Yes	Yes	6.07

*Not sampled as part of the 2019/2021 sampling events.

2.3 Regional Geology/Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. Immediately overlying the bedrock is the Raritan Formation, consisting of the Lloyd sand confined by the Raritan clay Member. The Lloyd sand is an aquifer and consists of discontinuous layers of gravel, sand, sandy and silty clay, and solid clay. The Raritan clay is a solid and silty clay with that is gray, red or white in color with few lenses of sand and gravel and abundant lignite and pyrite.

Above the Raritan Clay lies the Magothy Formation. The Magothy aquifer consists of layers of fine to coarse sand of moderate to high permeability, with inter-bedded lenses of silt and clay of low permeability resulting in areas of preferential horizontal flow. Therefore, this aquifer generally becomes more confined with depth. The Magothy Formation is overlain by the Upper Glacial deposits which contains the Upper Glacial aquifer. The Upper Glacial aquifer is the water-table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the water table to the top of the Magothy and, therefore, is hydraulically connected to the Magothy aquifer.

The aquifer of concern at the former BOMARC site is the Upper Glacial aquifer which is an unconsolidated mixture of sand and gravel. The Upper Glacial aquifer is approximately 100 feet thick (saturated zone) at the site, and has an estimated average horizontal hydraulic conductivity (permeability) of 270 feet/day and a vertical hydraulic conductivity of 27 feet/day (Franke & Cohen, 1972).

Clay layers, such as the Gardiners clay and the “20-Foot-clay,” where present, may act as local confining units, separating the Upper Glacial aquifer from the underlying Magothy aquifer which is the principal source of drinking water in Suffolk County. These clay layers extend throughout much of the south shore of Long Island and are likely present just south of the site.

2.4 Site Features

The project site elevation is approximately 50 feet above mean sea level and is generally level, with the exception of several earthen berms at the northern end of the property associated with the police firing range. The site is developed with multiple warehouse and office buildings used by Suffolk County, 56 former BOMARC missile bunkers currently used for storage, and a police firing range. There are multiple unpaved parking areas throughout the property used as vehicle impound lots by Suffolk County.

2.5 Current and Future Site Use

The site is currently utilized by Suffolk County as a police training facility/firing range, police impound lot, and county storage area. Significant changes in the use of the site are not planned for the near future.

3.0 FIELD INVESTIGATION

Due to the time elapsed since the previous sampling event (2019), additional characterization sampling was performed on UIC structures previously identified as impacted. Additionally, a geophysical survey was performed to determine whether additional overflow UIC structures are connected to the UIC structures previously identified as impacted.

3.1 Geophysical Survey

On December 21, 2022 PWGC and Advanced Geological Services (AGS) of Malvern, Pennsylvania mobilized to the subject property to perform a geophysical survey. The purpose of the geophysical survey was to determine the absence/presence of subsurface anomalies at the subject property. Descriptions of the geophysical methods are described below.

3.1.1 Geophysical Methodology

AGS utilized a Survey Systems Inc. SIR-3000 with a 400 Mhz antenna to perform a ground penetrating radar (GPR) survey. GPR uses high frequency pulsed electromagnetic waves 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. Penetration is the greatest in unsaturated sands and fine gravels and dry, well cured concrete. Clayey, highly saline or saturated soils, areas covered by steel reinforced concrete, foundry slag, uncured concrete, or other highly conductive materials significantly reduce depth penetration of the GPR signal. 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 as discussed above.

3.1.2 Geophysical Findings

The geophysical survey focused on potential additional UIC structures in the vicinity of buildings 206 and 216. Geophysical findings are as follows:

Building 216

A trench drain (S-16) is located in the garage and surface debris is located across much of the garage area. AGS and PWGC opened the trench drain and observed two pipes running west, meeting a catch basin/pit along the wall. The catch basin was opened and a single approximately two-foot diameter concrete pipe was observed continuing west into the next room. GPR data were collected in the room, and the pipe was determined to turn south exiting the building. The pipe was observed in the GPR data running south and turning upward truncating as a vertical pipe extending approximately three feet above grade located next to an abandoned piece of industrial equipment. Each portion of discharge pathway associated with trench drain S-16 (i.e., the trench drain, the catch basin, and the concrete piping) appeared to be solid bottom, non-leaching structures. The purpose of the vertical piping is unknown; however, no pathway for trench drain S-16 to discharge to the subsurface was identified.

A second smaller pipe was observed in the GPR data collected at Building 216. The pipe was identified running south away from a sink, exiting the building, and running to a small washout (S-16A) located in the trees.

Building 206

A dry-well is visible at ground surface, located northwest of Building 206. GPR data were collected around the dry-well (S-17DW) and a pipe was observed trending south, connecting to the floor drains in Building 206.

Geophysical Summary

Based on the findings of the geophysical survey, the following structures were added to the sampling scope:

- The washout area where the piping from the sink in Building 216 was determined to discharge (S-16A).
- The structure to the north of Building 206 that was determined to be connected to floor drain S-17 (S-17DW).

No additional UIC structures were identified.

A copy of the Geophysical Survey Report, including further detail regarding the methodology and findings, is included in **Appendix A**.

3.2 Characterization of UIC Structures

3.2.1 UIC Sampling Methodology

On December 21, 2022 and March 30 2022, PWGC mobilized to the subject property to complete characterization sampling. Characterization samples were collected from the following structures:

- Storm drain S-2
- Septic tank S-3
- Floor drains S-16, S-18
- Drywell S-17DW
- Washout area S-16A

Samples were retrieved from the base of UIC structures utilizing a stainless-steel hand auger. A location S-16A, surficial soil samples were collected from 0-6 inches below grade and 6 to 12 inches below grade.

Prior to sampling and between sampling locations, equipment was decontaminated using a laboratory-grade glassware detergent and tap water scrub to remove contamination, then generously rinsed with tap water and then distilled water.

Soil samples collected for volatile organic analysis were collected directly from the hand auger bucket. The remaining sample volumes were transferred to a stainless-steel bowl and homogenized. Once homogenized, samples were transferred to laboratory supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody procedures to York Analytical Laboratories of Stratford, Connecticut, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory, for analysis following NYSDEC ASP-Category A Deliverables.

3.2.2 UIC Sample Analysis

Samples were collected from each UIC structure listed above as detailed in Section 3.1, and were analyzed for the following in accordance with Suffolk County Department of Health (SCDHS) Standard Operating Procedure (SOP) 9-95 (August 2010):

- VOCs by USEPA Method 8260 (SCDHS List)
- SVOCs by USEPA Method 8270 (SCDHS List)
- Metals by USEPA Method 6010/7471 (SCDHS List plus selenium)
- PCBs by USEPA Method 8082

3.2.3 UIC Sample Analytical Results

UIC sample analytical results were compared to the Action Levels specified in SCDHS Article 12 - SOP 9-95 (August 2010) for VOCs, SVOCs and metals, and NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs) for PCBs.

Storm drain S-2 and floor drain S-18 did not contain VOCs, SVOCs or metals at concentrations exceeding SCDHS Action Levels, or PCBs exceeding NYSDEC UUSCOs. Due to a laboratory error, sample S-18 was not analyzed for PCBs; however, a previous sample collected from this structure by SCDHS in 2019 (see Section 2.2.2) contained total PCBs at concentrations exceeding the NYSDEC UUSCO.

Septic tank S-3 contained multiple VOCs and metals at concentrations exceeding SCDHS Action Levels. Several additional VOCs and metals were detected at concentration exceeding SCDHS Cleanup Objectives. Total PCBs were detected at a concentration exceeding the NYSDEC UUSCO. SVOCs were not detected at concentrations exceeding SCDHS Action Levels or Cleanup Objectives.

Floor drain s-16 contained multiple SVOCs and metals at concentrations exceeding SCDHS Action Levels. Total PCBs were detected at a concentration exceeding the NYSDEC UUSCO. VOCs were not detected at concentrations exceeding SCDHS Action Levels or Cleanup Objectives.

Drywell s-17DW contained multiple SVOCs at concentrations exceeding SCDHS Action Levels. Total PCBs were detected at a concentration exceeding the NYSDEC UUSCO. VOCs and metals were not detected at concentrations exceeding SCDHS Action Levels or Cleanup Objectives.

For washout area S-16A, initially, only the 0-6 inch sample was submitted for analysis. The 0-6 inch sample contained PCBs at concentrations exceeding NYSDEC UUSCOs. VOCs, SVOCs and metals were not detected at concentrations exceeding their respective SCDHS Action Levels. Based on these results, the 6-12 inch sample from location S-16A was analyzed for PCBs. Sample S-16A at 6-12 inches also contained PCB impact exceeding NYSDEC UUSCOs. The difference in PCB concentrations from 0-6 inches to 6-12 inches was minimal.

Analytical results are detailed in **Tables 1** through **Table 4** and the complete laboratory analytical report is included in **Appendix B**.

3.3 Former Burn Pit investigation

3.3.1 Investigation Findings

On December 20, 2022, PWGC mobilized to the subject property to investigate and collect characterization samples from the former fireworks burn pits. The former fireworks burn pits consist of two below grade concrete structures (~10 foot diameter x 10 feet deep) situated on the northwestern portion of the property (FP001 and FP002). The location of the Former fireworks burn pits are provided on Figure 3. The burn pits were utilized to dispose of illegal fireworks in a safe manner. The Suffolk County Department of Public Works (SCDPW) reportedly removed the burn pits and backfilled the area.

To investigate and sample the former burn pits, an excavator was used to perform exploratory excavation to locate the structures. Once located, fill material from within the structures was removed and stockpiled to evaluate whether the concrete bottoms of the structures had been removed. Both structures appeared to have solid bottoms as soils encountered approximately seven feet below grade were saturated (depth to groundwater is approx. 40 feet below grade) with residual firework material and a strong fireworks odor observed.

3.3.2 Burn Pit Sampling Methodology

Samples were retrieved from the base of each burn pit (FP001 @ 8 feet below grade, and FP002 at 9 feet below grade) utilizing a stainless-steel hand auger. Prior to sampling and between sampling locations, equipment was decontaminated using a laboratory-grade glassware detergent and tap water scrub to remove contamination, then generously rinsed with tap water and then distilled water.

Soil samples collected for volatile organic analysis were collected directly from the hand auger bucket. The remaining sample volumes were transferred to a stainless-steel bowl and homogenized. Once homogenized, samples were transferred to laboratory supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody procedures to York, a NYSDOH ELAP certified laboratory, for analysis following NYSDEC ASP-Category A Deliverables.

3.3.3 *Burn Pit Sample Analysis*

Samples were collected from each structure listed above as detailed in Section 3.1, and were analyzed for the following in accordance with Suffolk County Department of Health (SCDHS) Standard Operating Procedure (SOP) 9-95 (August 2010):

- VOCs by USEPA Method 8260 (SCDHS List)
- SVOCs by USEPA Method 8270 (SCDHS List)
- Metals by USEPA Method 6010/7471 (SCDHS List plus selenium)
- PCBs by USEPA Method 8082

3.3.4 *Burn Pit Sample Analytical Results*

UIC sample analytical results were compared to the Action Levels specified in SCDHS Article 12 - SOP 9-95 (August 2010) for VOCs, SVOCs and metals, and NYSDEC UUSCOs for PCBs.

The sample collected from burn pit FP001 contained multiple petroleum related VOCs and metals (barium & lead) at concentrations exceeding SCDHS Action Levels. Several additional VOCs and metals were detected at concentrations exceeding SCDHS Cleanup Objectives. SVOCs were not detected at concentrations exceeding SCDHS Action Levels or Cleanup Objectives; PCBs were not detected above the laboratory method detection limit.

The sample collected from burn pit FP002 contained metals (barium & chromium) at concentrations exceeding SCDHS Action Levels. Several additional metals were detected at concentrations exceeding SCDHS Cleanup Objectives. VOCs and SVOCs were not detected at concentrations exceeding SCDHS Action Levels or Cleanup Objectives; PCBs were not detected above the laboratory method detection limit.

Analytical results are detailed in **Tables 1** through **Table 4** and the complete laboratory analytical report is included in **Appendix B**.

4.0 CONCLUSIONS AND RECOMMENDATIONS

PWGC performed UIC characterization at the subject property in accordance with PWGC's August 2022 IRM Work Plan. The scope of work included:

- Geophysical survey
- UIC sampling
- Former burn pit investigation

4.1 Conclusions

Based on the results of the UIC characterization investigation, PWGC offers the following conclusions:

- A geophysical survey consisting of a GPR investigation focused on Buildings 206 and 216 was performed. The GPR investigation identified:
 - A washout to the southwest of Building 216 where the piping from a sink in Building 216 was determined to discharge (S-16A).
 - One drywell north of Building 206 (S-17DW) that appears to be connected to a floor drain within Building 206 (S-17) that was previously identified as impacted.
 - No additional previously unidentified UIC structures were located by the GPR investigation.
- Characterization samples were collected from storm drain S-2, septic tank S-3, floor drains S-16, S-18, and drywell S-17DW. Samples were analyzed for VOCs, SVOCs, metals and PCBs. Sample results identified the following:
 - Storm drain S-2 did not contain impact at concentrations exceeding SCDHS Action Levels or NYSDEC UUSCOs.
 - Septic tank S-3 contained multiple VOCs and metals at concentrations exceeding SCDHS Action Levels and total PCBs were at a concentration exceeding the NYSDEC UUSCO.
 - Floor drain s-16 contained multiple SVOCs and metals at concentrations exceeding SCDHS Action Levels and total PCBs at a concentration exceeding the NYSDEC UUSCO.
 - Floor drain S-18 did not contain VOCs, SVOCs or metals at concentrations exceeding SCDHS Action Levels. Due to a laboratory error, sample S-18 was not analyzed for PCBs; however, a previous sample collected from this structure by SCDHS in 2019 (see Section 2.2.2) contained total PCBs at concentrations exceeding the NYSDEC UUSCO.
 - Drywell s-17DW contained multiple SVOCs at concentrations exceeding SCDHS Action Levels and total PCBs at a concentration exceeding the NYSDEC UUSCO.
 - Washout S-16A contained PCBs at concentrations exceeding the NYSDEC UUSCO in the 0-6 inch and 6-12 inch samples. VOCs, SVOCs and metals were not detected at concentrations exceeding their respective SCDHS Action Levels.

- Based on investigation of the former fireworks burn pits, both pits appear to have solid bottoms. Samples collected from fill material within the two pits contained VOCs (FP001 only) and metals (FP001 & FP002) at concentrations exceeding SCDHS Action Levels.

Sampling performed to date along with regulatory exceedances are summarized below:

Structure ID	Description	Sample Date	Suffolk County SOP-9-95 Exceedance			UUSCOs Exceedance for PCBs?	Total PCBs (ppm)
			VOCs	SVOCs	Metals		
S-2	Storm Drain	4/30/19	No	No	No	Yes	4.3
		12/21/22	No	No	No	No	ND
S-3	Septic Tank	4/30/19	Yes	No	No	Yes	0.598
		12/21/22	Yes	No	Yes	Yes	0.285
S-16	Floor Drain	5/1/19	Yes	Yes	Yes	Yes	593
		12/21/22	No	Yes	Yes	Yes	326
S-16A (0-6")	Washout Area	3/30/23	No	No	No	Yes	0.525
S-16A (6-12")	Washout Area	3/30/23	N/A	N/A	N/A	Yes	0.512
S-17	Floor Drain	5/1/19	No	Yes	Yes	Yes	9,560
S-17OF	Floor Drain Discharge Point	3/23/21	No	No	No	Yes	1.59
S-17DW	Floor Drain Discharge Drywell	12/21/22	No	Yes	No	Yes	0.531
S-18	Floor Drain	5/1/19	No	No	No	Yes	7.11
		12/21/22	No	No	No	N/A	N/A
S-22	Former Burn Pits	5/1/19	Yes	No	Yes	Yes	6.07
FP001	Former Burn Pit	12/20/22	Yes	No	Yes	No	ND
FP002	Former Burn Pit	12/20/22	No	No	Yes	No	ND

4.2 Recommendations

Based on the conclusions detailed above, PWGC offers the following recommendations for the subject property:

- Based on sample results from SCDHS sampling in 2019 (see Section 2.2.2) and sampling performed as part of this characterization, structures S-2, S-3, S-16, S-17, S-17DW and S-18 and washout area S-16A should be remediated in accordance with SCDHS UIC program procedures and PWGC's August 2022 IRM Work Plan.
- As part of the remedial effort, floor drains S-16, S-17, and S-18 should be backfilled and permanently sealed.
- Fill material containing impact exceeding SCDHS Action Levels within the fireworks burn pits should be removed and disposed of at a properly permitted facility. Prior to backfilling the burn pits, the concrete bottoms should be removed to allow for drainage.
- Generated wastes should be stockpiled onsite for waste characterization prior to sampling and disposed of at a properly permitted facility in accordance with PWGC's August 2022 IRM Work Plan and federal, state and local regulations. A Self-Implementing Cleanup Plan should be submitted to USEPA to allow for low level PCB-impacted wastes to be segregated and disposed of as non-Toxic Substances Control Act (TSCA) waste. The Self-Implementing Cleanup Plan will include provisions for the remediation of each impacted structure identified in this report.
- Remedial work should be performed in accordance with the Quality Assurance Project Plan (QAPP), Health and Safety Plan (HASP), and waste manifest/reporting requirements specified in PWGC's August 2022 IRM Work Plan.
- Based on current regulations, no additional remediation for UIC structures at the site is anticipated following completion of the remedial effort described above.



5.0 REFERENCES

6 NYCRR Part 375 Environmental Remediation Programs Subparts 375-1 to 375-4 and 375-6.

Commissioners Policy CP-51, Soil Cleanup Guidance, NYSDEC, October 21, 2010.

Standard Operating Procedure for the Administration of Article 12 of the Suffolk County Sanitary Code, SOP 9-95, Pumpout and Soil Cleanup Criteria, SCDHS, August 2010.

Technical Guidance for Site Investigation and Remediation (DER-10), NYSDEC, May 3, 2010.

Underground Injection Control Structure Remediation, LAD 61 BOMARC, Westhampton, NY, PWGC, January 2014

Appendix A, Suffolk County Resolution No. 1065-2018 (contains 2020 SCDHS sample data)

BOMARC UIC Data Summary and UIC Remedial Cost Estimate, SCDHS, August 2021

Underground Injection Control Interim Remedial Measure Work Plan, BOMARC Site, 100 Old County Road, Westhampton, New York, NYSDEC Site 152262, PWGC, August 2022



6.0 LIMITATIONS

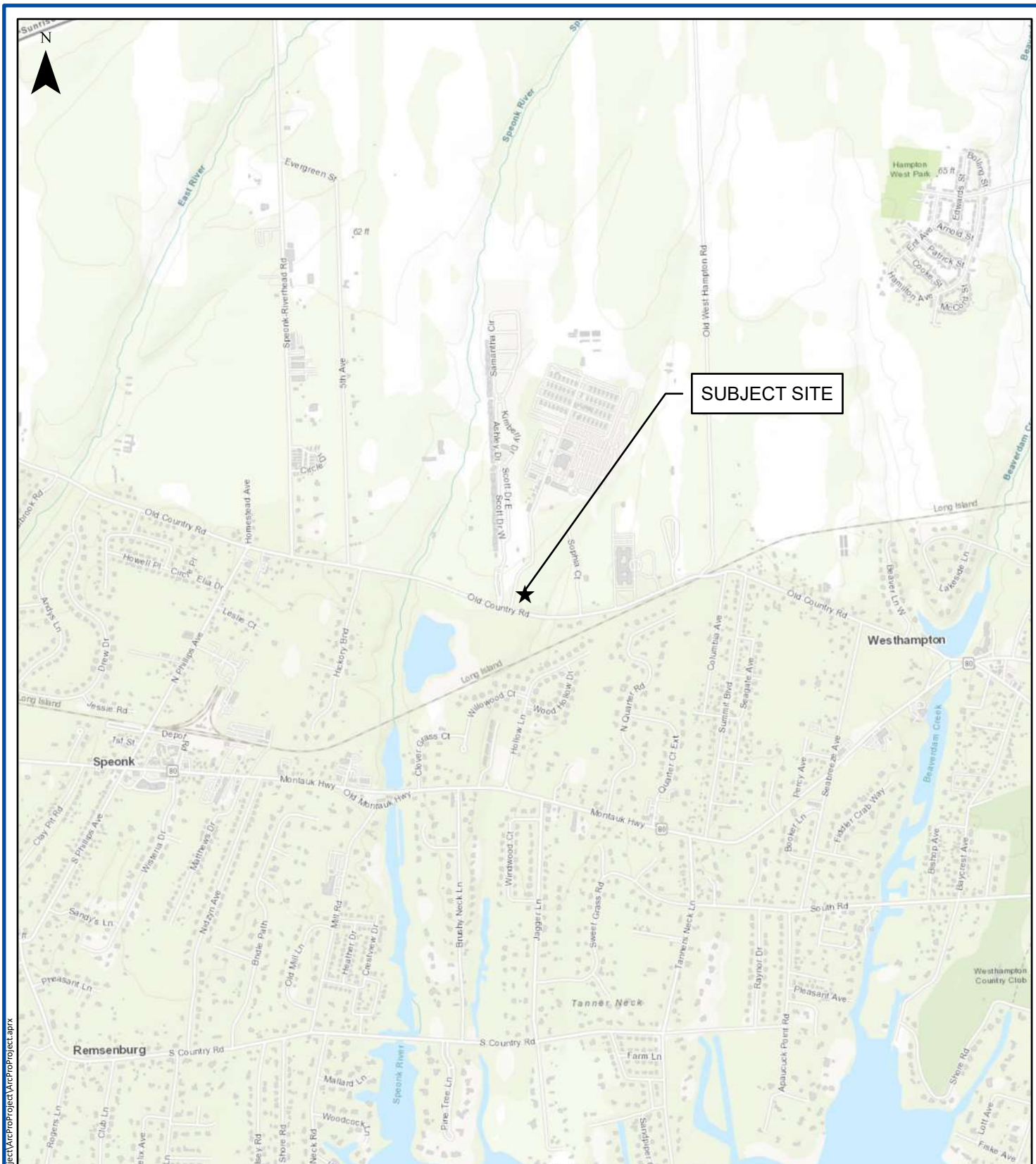
The conclusions presented in this report are professional opinions based on the data described in this report. These opinions have been arrived at in accordance with currently accepted engineering and hydrogeologic standards and practices applicable to this location, and are subject to the following inherent limitations:

1. The data presented in this report are from visual inspections and examination of records prepared by others. The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration of the site, analysis of data, and re-evaluation of the findings, observations, and conclusions presented in this report.
2. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. The scope of work was defined by the request of the client.
3. No warranty or guarantee, whether expressed or implied, is made with respect to the data reported, findings, observations, or conclusions. These are based solely upon site conditions in existence at the time of the investigation, and other information obtained and reviewed by PWGC.
4. The conclusions presented in this report are professional opinions based on data described in this report. They are intended only for the purpose, site location, and project indicated. This report is not a definitive study of contamination at the site and should not be interpreted as such.
5. This report is based, in part, on information supplied to PWGC by third-party sources. While efforts have been made to substantiate this third-party information, PWGC cannot attest to the completeness or accuracy of information provided by others.



FIGURES





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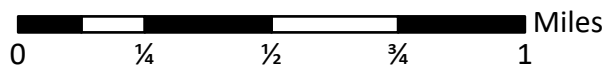


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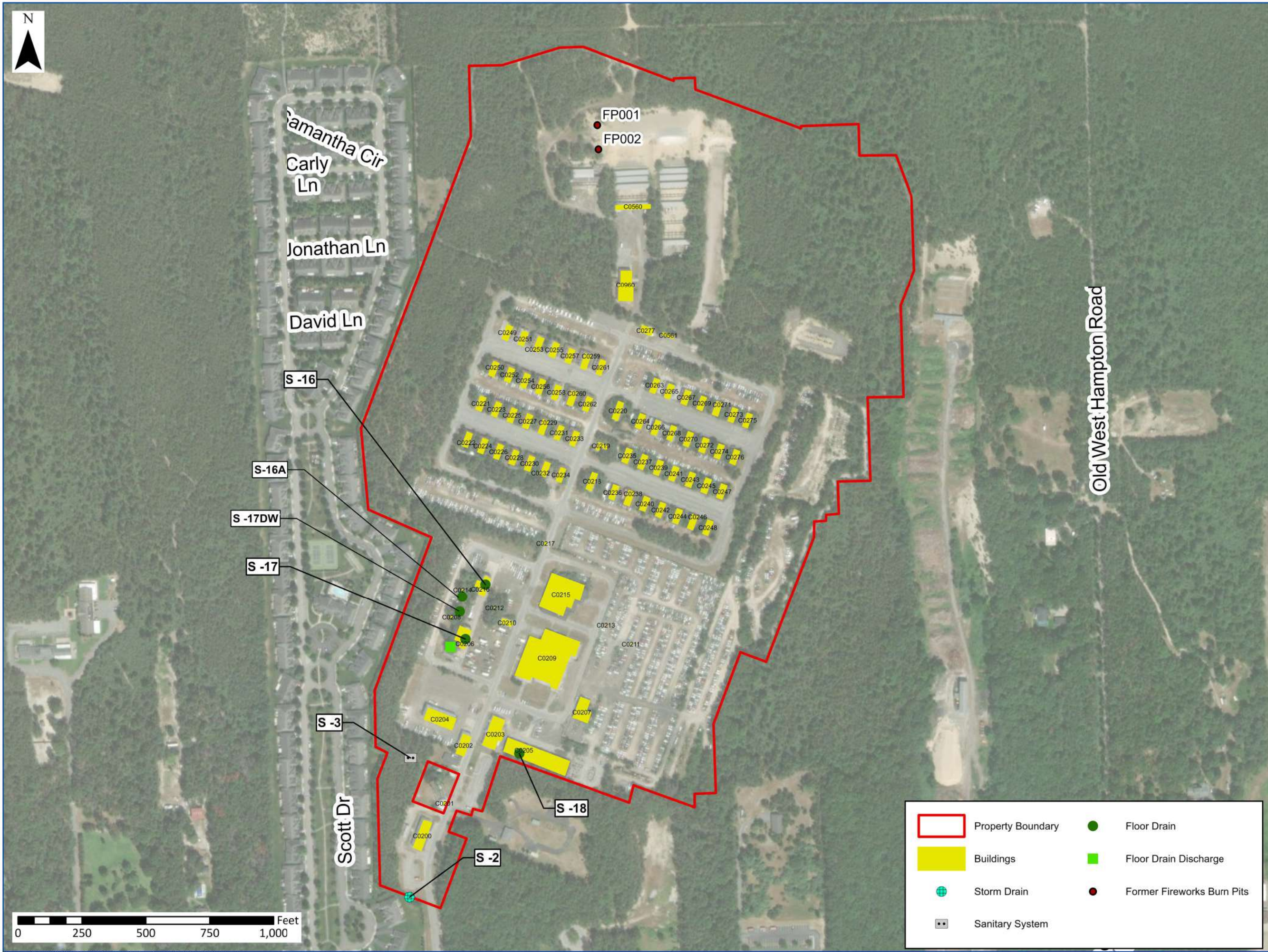
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SITE LOCATION

98 Old Country Road
Westhampton, NY



Project:	SHD2201
Date:	4/4/2022
Designed by:	JP
Drawn by:	OA
Approved by:	JP
Figure No:	1



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REVISION	DATE	INITIAL	COMMENTS

DRAWING INFORMATION:

Project:	SHD2201	Designed by:	JP
Date:	4/21/2023	Drawn by:	OA
Scale:	AS SHOWN	Approved by:	JP

Site Plan

98 Old Country Road
Westhampton, NY

FIGURE NO:

TABLES



Table 1
Soil Sample Analytical Results - VOCs
Former BOMARC Site

LOCATION LAB SAMPLE ID SAMPLE DATE	CAS Number	SCDHS Action Level	SCDHS Cleanup Objective	Units	S-2 2211187-05 12/21/2022	S-3 2211187-04 12/21/2022	S-16 2211187-01 12/21/2022	S-16A (0-6") L2316688-01 3/30/2023	S-17 DW 2211187-02 12/21/2022	S-18 2211187-03 12/21/2022	FP001_9ft 2211175-01 12/20/2022	FP002_8ft 2211175-02 12/20/2022
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	630-20-6	600	300	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
1,1,1-Trichloroethane	71-55-6	1400	700	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
1,1,2,2-Tetrachloroethane	79-34-5	800	400	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	12000	6000	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
1,1,2-Trichloroethane	79-00-5	200	100	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,1-Dichloroethane	75-34-3	600	300	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,1-Dichloroethylene	75-35-4	600	300	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,1-Dichloropropylene	563-58-6	200	100	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
1,2,3-Trichlorobenzene	87-61-6	17000	8300	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,2,3-Trichloropropane	96-18-4	100	50	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,2,4,5-Tetramethylbenzene	95-93-2	18000	8800	ug/kg	2.6 U	17000 D	5 U	2.9 U	2.9 U	2.7 U	12000 D	1300 D
1,2,4-Trichlorobenzene	120-82-1	17000	8300	ug/kg	2.6 U	8600 D	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,2,4-Trimethylbenzene	95-63-6	7200	3600	ug/kg	2.6 U	41000 D	5 U	2.9 U	2.9 U	2.7 U	61000 D	2500 D
1,2-Dibromo-3-chloropropane	96-12-8	100	50	ug/kg	2.6 U	1400 U	5 U	4.3 U	2.9 U	2.7 U	420 U	300 U
1,2-Dibromoethane	106-93-4	600	300	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,2-Dichlorobenzene	95-50-1	2200	1100	ug/kg	15	1300000 D	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,2-Dichloroethane	107-06-2	100	50	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,2-Dichloropropane	78-87-5	100	50	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
1,3,5-Trimethylbenzene	108-67-8	16800	8400	ug/kg	2.6 U	16000 D	5 U	2.9 U	2.9 U	2.7 U	20000 D	1400 D
1,3-Dichlorobenzene	541-73-1	4800	2400	ug/kg	2.6 U	19000 D	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,3-Dichloropropane	142-28-9	600	300	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,4-Dichlorobenzene	106-46-7	3600	1800	ug/kg	6.3	410000 D	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
1,4-Dioxane	123-91-1	NS	NS	ug/kg	52 U	28000 U	100 U	NA	57 U	54 U	8400 U	6100 U
2,2-Dichloropropane	594-20-7	600	300	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
2-Butanone	78-93-3	400	200	ug/kg	2.6 U	1400 U	5 U	3.2 U	2.9 U	2.7 U	420 U	300 U
2-Chloroethylvinyl ether	110-75-8	1000	500	ug/kg	10 U	5600 U	20 U	29 U	11 U	11 U	1700 U	1200 U
2-Chlorotoluene	95-49-8	5200	2600	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
2-Hexanone	591-78-6	13000	6700	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
2-Nitropropane	79-46-9	600	300	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
4-Chlorotoluene	106-43-4	5200	2600	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
4-Methyl-2-pentanone	108-10-1	1400	700	ug/kg	2.6 U	1400 U	7.5 U	14 U	2.9 U	2.7 U	420 U	300 U
Acetone	67-64-1	**	**	ug/kg	6.8 U	2800 U	25	79	21	13	840 U	610 U
Acrolein	107-02-8	100	50	ug/kg	5.2 U	2800 U	10 U	36 U	5.7 U	5.4 U	840 U	610 U
Acrylonitrile	107-13-1	100	50	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
Allyl chloride	107-05-1	400	200	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Benzene	71-43-2	120	60	ug/kg	2.6 U	2100 JD	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Bromobenzene	108-86-1	2800	1400	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Bromochloromethane	74-97-5	400	200	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Bromodichloromethane	75-27-4	4600	2300	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Bromoform	75-25-2	13000	6300	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
Bromomethane	74-83-9	NS	NS	ug/kg	2.6 U	1400 U	5 U	NA	2.9 U	2.7 U	420 U	300 U
Carbon disulfide	75-15-0	5600	2800	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Carbon tetrachloride	56-23-5	1600	800	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
Chlorobenzene	108-90-7	2200	1100	ug/kg	2.6 U	660000 D	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Chlorodifluoromethane (Freon 22)	75-45-6	100	50	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Chloroethane	75-00-3	400	200	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Chloroform	67-66-3	800	400	ug/kg	2.6 U	1400 U	5 U	2.1 U	2.9 U	2.7 U	420 U	300 U
Chloromethane	74-87-3	100	50	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
cis-1,2-Dichloroethylene	156-59-2	500	250	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
cis-1,3-Dichloropropylene	10061-01-5	100	50	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
cis-decahydronaphthalene	493-01-6	200000	100000	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	1100 D
Dibromochloromethane	124-48-1	6200	3100	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
Dibromomethane	74-95-3	400	200	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Dichlorodifluoromethane	75-71-8	600	300	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Ethyl Benzene	100-41-4	2000	1000	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	3600 D	310 JD
Ethyl Ether	60-29-7	600	300	ug/kg	2.6 U	14000 U	50 U	2.9 U	2.9 U	2.7 U	4200 U	3000 U
Ethyl Methacrylate	97-63-7	4200	2100	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Ethyl tert-butyl ether (ETBE)	637-92-3	4000	2000	ug/kg	4.2 U	2200 U	8 U	2.9 U	4.6 U	4.3 U	670 U	480 U
Hexachlorobutadiene	87-68-3	54000	27000	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
Hexachloroethane	67-72-1	22000	1100	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Iodomethane	74-88-4	200	100	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Isopropylbenzene	98-82-8	9400	4700	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	4100 D	300 U
Limonene	5989-27-5	200000	100000	ug/kg	2.6 U	13000 D	5 U	2.6 U	2.9 U	2.7 U	420 U	300 U
Methyl Isothiocyanate (TIC)	556-61-6	600	300	ug/kg	52 U	28000 U	100 U	7.2 U	57 U	54 U	8400 U	6100 U
Methyl Methacrylate	80-62-6	1400	700	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Methyl tert-butyl ether (MTBE)	1634-04-4	200	100	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Methylene chloride	75-09-2	100	50	ug/kg	5.2 U	2800 U	10 U	7.2 U	5.7 U	5.4 U	840 U	610 U
Naphthalene	91-20-3	24000	12000	ug/kg	2.6 U	39000 D	5 U	5.7 U	2.9 U	2.7 U	9300 D	1100 JD
n-butyl acetate	123-86-4	20000	10000	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
n-Butylbenzene	104-51-8	12000	5900	ug/kg	2.6 U	9600 D	5 U	1.4 U	2.9 U	2.7 U	14000 D	1300 D
n-Decane	124-18-5	200000	100000	ug/kg	2.6 U	30000 D	5 U	7.2 U	2.9 U	2.7 U	84000 D	9200 D
n-Hexane	110-54-3	150000	73000	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
Nitrobenzene	98-95-3	100	50	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	420 U	300 U
n-Nonane	111-84-2	200000	100000	ug/kg	2.6 U	16000 D	5 U	7.2 U	2.9 U	2.7 U	74000 D	5600 D
n-octane	111-65-9	200000	100000	ug/kg	2.6 U	1400 U	5 U	7.2 U	2.9 U	2.7 U	17000 D	1500 D
n-Propylbenzene	103-65-1	8000	4000	ug/kg	2.6 U	4000 D	5 U	1.4 U	2.9 U	2.7 U	9700 D	660 D
n-undecane	1120-21-4	200000	100000	ug/kg	2.6 U	8900 D	10	2.1 U	2.9 U	2.7 U	26000 D	6600 D
o-Xylene	95-47-6	3200	1600	ug/kg	2.6 U	2500 JD	5.2 U	1.4 U	2.9 U	2.7 U	10000 D	710 D
p- & m- Xylenes	179601-23-1	3200	1600	ug/kg	5.2 U	4500 JD	10 U	2.9 U	5.7 U	5.4 U	13000 D	860 JD
p-Diethylbenzene	105-05-5	52000	26000	ug/kg	2.6 U	23000 D	5 U	2.9 U	2.9 U	2.7 U	31000 D	2900 D
p-Ethyltoluene	622-96-8	9000	4500	ug/kg	2.6 U	21000 D	5 U	2.9 U	2.9 U	2.7 U	41000 D	2300 D
p-Isopropyltoluene	99-87-6	22000	11000	ug/kg	2.6 U	5000 D	5 U	0.26 U	2.9 U	2.7 U	7200 D	580 JD
sec-Butylbenzene	135-98-8	12000	5900	ug/kg	2.6 U	3300 D	5 U	1.4 U	2.9 U	2.7 U	7200 D	610 D
Styrene	100-42-5	9200	4600	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
tert-Amyl methyl ether (TAME)	994-05-8	4000	2000	ug/kg	4.2 U	2200 U	8 U	2.9 U	4.6 U	4.3 U	670 U	480 U
tert-Butylbenzene	98-06-6	12000	5900	ug/kg	2.6 U	1400 U	5 U	2.9 U	2.9 U	2.7 U	420 U	300 U
Tetrachloroethylene	127-18-4	2600	1300	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Tetrahydrofuran	109-99-9	2200	1100	ug/kg	5.2 U	2800 U	10 U	5.7 U	5.7 U	5.4 U	840 U	610 U
Toluene	108-88-3	3000	1500	ug/kg	2.6 U	2300 JD	5 U	1.4 U	2.9 U	2.7 U	1200 D	540 JD
trans-1,2-Dichloroethylene	156-60-5	400	200	ug/kg	2.6 U	1400 U	5 U	2.1 U	2.9 U	2.7 U	420 U	300 U
trans-1,3-Dichloropropylene	10061-02-6	100	50	ug/kg	2.6 U	1400 U	5 U	1.4 U	2.9 U	2.7 U	420 U	300 U
trans-decahydronaphthalene	493-02-7	200000	100000	ug/kg	2.6 U	8000 D	5 U	7.2 U	2.9 U	2.7 U	13000 D	5200 D
Trichloroethylene	79-01-6	1000	500	ug/kg	2.6 U	1400 U	5 U	0.72 U	2.9 U	2.7 U	420 U	300 U
Trichlorofluoromethane	75-69-4	1600	800	ug/kg	2.6 U	1400 U	5 U	5.7 U	2.9 U	2.7 U	420 U	300 U
Vinyl acetate	108-05-4	600	300	ug/kg	2.6 U	1400 U	5 U	14 U	2.9 U	2.7 U	420 U	300 U
Vinyl Chloride	75-01-4											

Table 2
Soil Sample Analytical Results - SVOCs
Former BOMARC Site

LOCATION LAB SAMPLE ID SAMPLE DATE	CAS Number	SCDHS Action Level	SCDHS Cleanup Objective	Units	S-2 22L1187-05 12/21/2022	S-3 22L1187-04 12/21/2022	S-16 22L1187-01 12/21/2022	S-16A (0-6") L2316688-01 3/30/2023	S-17 DW 22L1187-02 12/21/2022	S-18 22L1187-03 12/21/2022	FP001_9ft 22L1175-01 12/20/2022	FP002_8ft 22L1175-02 12/20/2022
Semi-Volatile Organic Compounds												
Acenaphthene	83-32-9	200000	98000	ug/kg	46.2 U	99.6 U	678 D	34 J	227 U	47.3 U	77.6 U	64.2 U
Anthracene	120-12-7	200000	100000	ug/kg	83.3 JD	808 D	1310 D	40 J	293 JD	47.3 U	77.6 U	64.2 U
Benzo(a)anthracene	56-55-3	2000	1000	ug/kg	453 D	567 D	2860 D	120	2270 D	47.3 U	77.6 U	64.2 U
Benzo(a)pyrene	50-32-8	44000	22000	ug/kg	314 D	243 D	1640 D	140 J	1970 D	47.3 U	77.6 U	64.2 U
Benzo(b)fluoranthene	205-99-2	3400	1700	ug/kg	332 D	233 D	1730 D	200	1930 D	47.3 U	77.6 U	69.6 JD
Benzo(g,h,i)perylene	191-24-2	200000	100000	ug/kg	280 D	99.6 U	1360 D	83 J	1210 D	47.3 U	77.6 U	64.2 U
Benzo(k)fluoranthene	207-08-9	3400	1700	ug/kg	268 D	138 JD	1490 D	68 J	1720 D	47.3 U	77.6 U	64.2 U
Chrysene	218-01-9	2000	1000	ug/kg	522 D	718 D	3090 D	150	2300 D	47.3 U	77.6 U	67.6 JD
Dibenzo(a,h)anthracene	53-70-3	200000	100000	ug/kg	48.6 JD	99.6 U	388 JD	25 J	227 U	47.3 U	77.6 U	64.2 U
Fluoranthene	206-44-0	200000	100000	ug/kg	972 D	99.6 U	7120 D	360	2610 D	50.6 JD	77.6 U	136 D
Fluorene	86-73-7	200000	100000	ug/kg	46.2 U	1660 D	759 D	30 J	227 U	47.3 U	472 D	74.8 JD
Indeno(1,2,3-cd)pyrene	193-39-5	16000	8000	ug/kg	359 D	99.6 U	1610 D	98 J	1630 D	47.3 U	77.6 U	64.2 U
Phenanthrene	85-01-8	200000	100000	ug/kg	443 D	4450 D	6800 D	320	763 D	47.3 U	172 D	112 JD
Pyrene	129-00-0	200000	100000	ug/kg	1100 D	2250 D	7210 D	280	3200 D	47.6 JD	77.6 U	86 JD

Notes:
SCDHS Action Levels & Cleanup Objectives, SOP 9-95 Pumpout and Soil Cleanup Criteria, 8/2010
NS - No Standard
** - The Action Level for acetone will be determined on a case by case basis
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
D - Result is from an analysis that required a dilution
Yellow highlighted text denotes concentrations exceeding SCDHS Cleanup Objective
Orange highlighted text denotes concentrations exceeding SCDHS Acton Level

Table 3
Soil Sample Analytical Results - Metals
Former BOMARC Site

LOCATION LAB SAMPLE ID SAMPLE DATE	CAS Number	SCDHS Action Level	SCDHS Cleanup Objective	Units	S-2 22L1187-05 12/21/2022	S-3 22L1187-04 12/21/2022	S-16 22L1187-01 12/21/2022	S-16A (0-6") L2316688-01 3/30/2023	S-17 DW 22L1187-02 12/21/2022	S-18 22L1187-03 12/21/2022	FP001_9ft 22L1175-01 12/20/2022	FP002_8ft 22L1175-02 12/20/2022
Total Metals												
Arsenic	7440-38-2	30	6	mg/kg	1.39 U	2.99 U	27.8	3.73	2.6	1.96	12.5	26.3
Barium	7440-39-3	4000	820	mg/kg	10.8	158	235	13.4	6.91	14.5	4360	6210
Beryllium	7440-41-7	240	47	mg/kg	0.1	0.1 U	0.141	0.105 J	0.089	0.193	0.173	0.293
Cadmium	7440-43-9	40	7.5	mg/kg	0.277 U	8.28	31.7	0.112 J	0.272 U	0.633	0.469 U	1.53
Chromium	7440-47-3	100	20	mg/kg	4.54	158	178	3.89	9.52	32.7	64.3	109
Copper	7440-50-8	8500	1700	mg/kg	10.5	761	305	5.47	22.6	18.9	7120	2890
Lead	7439-92-1	2000	450	mg/kg	18.5	145	4860	36.4	12.2	328	4920	843
Mercury	7439-97-6	3.7	0.7	mg/kg	0.0333 U	1.92	9.21	0.078 U	0.0326 U	0.0472	0.135	0.107
Nickel	7440-02-0	650	130	mg/kg	3.35	24.5	114	2.22	2.27	6.84	19.8	22.1
Selenium	7782-49-2	NS	NS	mg/kg	2.31 U	4.98 U	2.83 U	0.87 U	2.27 U	2.38 U	3.91 U	3.25 U
Silver	7440-22-4	50	10	mg/kg	0.462 U	5.15	0.567 U	0.217 U	0.453 U	0.477 U	0.782 U	0.651 U

Notes:
SCDHS Action Levels & Cleanup Objectives, SOP 9-95 Pumpout and Soil Cleanup Criteria, 8/2010
NS - No Standard
** - The Action Level for acetone will be determined on a case by case basis
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
D - Result is from an analysis that required a dilution
Yellow highlighted text denotes concentrations exceeding SCDHS Cleanup Objective
Orange highlighted text denotes concentrations exceeding SCDHS Acton Level

Table 4
Soil Sample Analytical Results - PCBs
Former BOMARC Site

LOCATION	CAS Number	NYSDEC	Units	S-2	S-3	S-16	S-16A (0-6")	S-16A (6-12")	S-17 DW	S-18	FP001_9ft	FP002_8ft
LAB SAMPLE ID		UUSCO		22L1187-05	22L1187-04	22L1187-01	L2316688-01	L2316688-02	22L1187-02	22L1187-03	22L1175-01	22L1175-02
SAMPLE DATE				12/21/2022	12/21/2022	12/21/2022	3/30/2023	3/30/2023	12/21/2022	12/21/2022	12/20/2022	12/20/2022
Polychlorinated Biphenyls												
Aroclor 1016	12674-11-2	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1221	11104-28-2	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1232	11141-16-5	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1242	53469-21-9	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1248	12672-29-6	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Aroclor 1254	11097-69-1	0.1	mg/kg	0.0182 U	0.285	326 D	0.525	0.512	0.531	NA	0.0305 U	0.0254 U
Aroclor 1260	11096-82-5	0.1	mg/kg	0.0182 U	0.0397 U	11.1 U	0.0378 U	0.0347 U	0.0181 U	NA	0.0305 U	0.0254 U
Total PCBs	1336-36-3	0.1	mg/kg	0.0182 U	0.285	326 D	0.525	0.512	0.531	NA	0.0305 U	0.0254 U

Notes:
NYSDEC Unrestricted Use Soil Cleanup Objective, 6 NYCRR Part 375 - Environmental Remediation Programs, 12/2006
NS - No Standard
NA - Not Analyzed
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
D - Result is from an analysis that required a dilution
Orange highlighted text denotes concentrations exceeding NYSDEC UUSCO

APPENDIX A

GEOPHYSICAL SURVEY REPORT



SHD2201 – UIC CHARACTERIZATION REPORT

P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC
631.589.6353 • WWW.PWGROSSER.COM • PWGC.INFO@PWGROSSER.COM
BOHEMIA • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SHELTON, CT



3 Mystic Lane
Malvern, PA 19355
(610) 722-5500 (ph.)
(610) 722-0250 (fax)

January 3, 2023
AGS Ref#: 22-329-1

Mr. Joe Pressler
P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia, New York 11716

Subject: Private Utility Markout Report
100 Old Country Road
Westhampton, Long Island, New York

Dear Mr. Pressler,

Advanced Geological Services (AGS) presents this letter report to P.W. Grosser Consulting (PWG) detailing the methods and results of the investigation conducted on December 21, 2022. The investigation was completed around two abandoned buildings located at the subject property. The objective of the investigation was to identify and markout piping associated with a trench drain (Building 216) and an abandoned dry-well (Building 206).

To achieve the investigation objective AGS utilized the ground penetrating radar (GPR) method. Additionally, AGS and PWG opened and observed the interior of the trench drain located in Building 216. GPR data were collected as a grid with a data density sufficient to identify piping or pipe trenchways across the survey areas.

The ground penetrating radar (GPR) method was used to search for and delineate potential underground utilities and other potential targets of interest. The GPR method is based upon the transmission of repetitive, radio frequency electromagnetic (EM) pulses into the subsurface. When the transmitted energy of the down-going wave contacts an interface of dissimilar electrical character, part of the energy is returned to the surface in the form of a reflected signal. This reflected signal is detected by a receiving transducer and is displayed on the screen of the GPR unit as well as being recorded on the internal hard-drive. The received GPR response remains constant as long as the electrical contrast between media is present and constant. Lateral or vertical changes in the electrical properties of the subsurface result in equivalent changes in the GPR responses. The system records a continuous image of the subsurface by plotting two-way travel time of the reflected EM pulse versus distance traveled along the ground surface. Two-way travel time values are then converted to depth using known soil velocity functions.

A Geophysical Survey Systems, Inc. SIR 3000 GPR system and a 400 megahertz (MHz) antenna were used with a recording window of 60 nanoseconds (ns) to provide the required depth penetration and subsurface detail. The GPR field procedures involved (1) instrument calibration, (2) test run completion, (3) production profile collection, analysis, and recording.

Results and Discussion

AGS utilized the GPR method to identify piping during the investigation conducted at Building 216 and Building 206, 100 Old Country Road, Westhampton, NY. GPR data were collected in the accessible interior and exterior portions of the abandoned buildings. AGS identified and marked out piping associated with a trench drain in Building 216, and identified the piping associated with a dry-well at Building 206. Discussions of the results of the investigation are detailed below.

Building 216

A trench drain is located in the garage and surface debris is located across much of the garage area. AGS and PWG opened the trench drain and observed two pipes running west, meeting a catch basin/pit along the wall. The catch basin was opened and a single pipe was observed continuing west into the next room. GPR data were collected in the room, and the pipe was identified turning south exiting the building. The pipe was observed in the GPR data running south ending at a large vertical pipe, located next to an abandoned piece of industrial equipment.

A second smaller pipe was observed in the GPR data collected at Building 216. The pipe was identified running south away from a sink, exiting the building, and running to a small washout located in the trees.

Building 206

A dry-well is visible at ground surface, located northwest of Building 206. GPR data were collected around the dry-well and a pipe was observed trending south, connecting to the floor drains in Building 206.

In summary, AGS identified and marked out piping associated with Building 216 and Building 206. Identified piping were marked onsite by AGS using spray paint. The results of the investigation were discussed with the PWG representative at the completion of field work. Annotated site photos are included with this report.

Closing

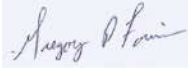
The data collection and interpretation methods used in this investigation are consistent with standard practices applied to similar investigations. The correlation of data responses with probable subsurface features is based on past results of similar surveys, although it is possible that some variation could exist at this site. Due to the nature of this data, no guarantees can be made or implied regarding the presence or absence of additional utilities, buried structures, or targets beyond those identified. All coordinates were determined using a GIS quality GPS

Mr. Joe Pressler
January 3, 2023
22-329-1
Page 3 of 3

instrument with up to sub-meter accuracy.

Feature locations were not determined by a licensed surveyor and should be considered approximate. If you have any questions, please contact me by phone 610-722-5500 or via email. It was a pleasure working with you on this project, and we look forward to conducting geophysical investigations for you in the future.

Sincerely,

A handwritten signature in blue ink, appearing to read "Greg Fournier", is displayed within a light blue rectangular box.

Greg Fournier
Project Scientist

Attachment: Site Photos



Photo showing the location of the observed piping running east through a catch basin, into the next room. Building 216

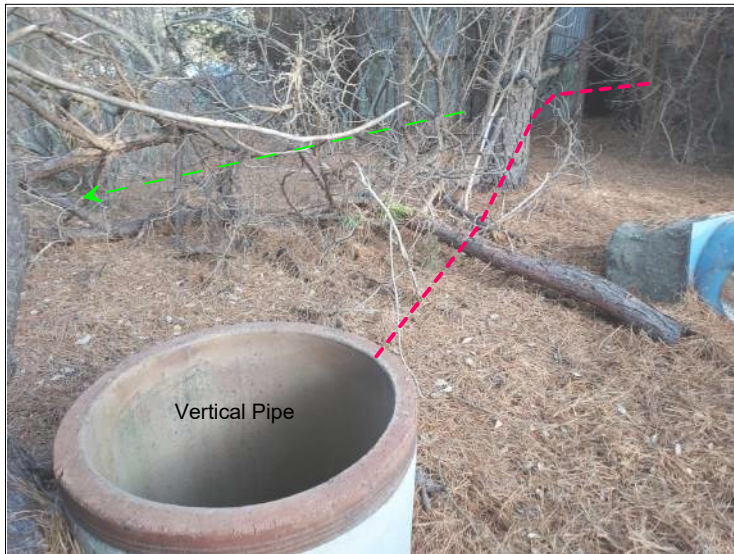


Photo showing the location of the observed piping (red) running between the building and the vertical pipe. The location of the second smaller pipe is shown in green. Building 216



Photo showing the location of the observed piping running between the dry-well and the building. Building 206

APPENDIX B

LABORATORY ANALYTICAL REPORTS





Technical Report

prepared for:

P.W. Grosser Consulting

630 Johnson Avenue, Suite 7

Bohemia NY, 11716

Attention: Thomas Melia

Report Date: 12/30/2022

Client Project ID: SHD2201 BOMARC

York Project (SDG) No.: 22L1175



CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037

New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

Report Date: 12/30/2022
Client Project ID: SHD2201 BOMARC
York Project (SDG) No.: 22L1175

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia NY, 11716
Attention: Thomas Melia

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 21, 2022 and listed below. The project was identified as your project: **SHD2201 BOMARC**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
22L1175-01	FP001_9ft	Soil	12/20/2022	12/21/2022
22L1175-02	FP002_8ft	Soil	12/20/2022	12/21/2022

General Notes for York Project (SDG) No.: 22L1175

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By:



Cassie L. Mosher
Laboratory Manager

Date: 12/30/2022





Sample Information

Client Sample ID: FP001_9ft

York Sample ID: 22L1175-01

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 12:00 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 15:23	BMC
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 15:23	BMC
95-93-2	* 1,2,4,5-Tetramethylbenzene	12000		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
95-63-6	1,2,4-Trimethylbenzene	61000		ug/kg dry	2100	4200	500	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 12:49	BMC
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
108-67-8	1,3,5-Trimethylbenzene	22000		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC



Sample Information

Client Sample ID: FP001_9ft

York Sample ID: 22L1175-01

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 12:00 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
123-91-1	1,4-Dioxane	ND		ug/kg dry	8400	17000	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 15:23	BMC
78-93-3	2-Butanone	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
110-75-8	2-Chloroethylvinyl ether	ND		ug/kg dry	1700	3400	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
95-49-8	2-Chlorotoluene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
591-78-6	2-Hexanone	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
106-43-4	4-Chlorotoluene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
67-64-1	Acetone	ND		ug/kg dry	840	1700	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
107-02-8	Acrolein	ND		ug/kg dry	840	1700	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
107-13-1	Acrylonitrile	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
71-43-2	Benzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
108-86-1	Bromobenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
74-97-5	Bromochloromethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
75-27-4	Bromodichloromethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
75-25-2	Bromoform	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
74-83-9	Bromomethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
75-15-0	Carbon disulfide	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
56-23-5	Carbon tetrachloride	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
108-90-7	Chlorobenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
75-00-3	Chloroethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC



Sample Information

Client Sample ID: FP001_9ft

York Sample ID: 22L1175-01

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 12:00 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
74-87-3	Chloromethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
124-48-1	Dibromochloromethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
74-95-3	Dibromomethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
100-41-4	Ethyl Benzene	3600		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
60-29-7	* Ethyl Ether	ND		ug/kg dry	4200	8400	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
637-92-3	* Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	670	1300	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
74-88-4	* Iodomethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
98-82-8	Isopropylbenzene	4100		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
80-62-6	Methyl Methacrylate	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
75-09-2	Methylene chloride	ND		ug/kg dry	840	1700	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
91-20-3	Naphthalene	9300		ug/kg dry	420	1700	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
104-51-8	n-Butylbenzene	14000		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
103-65-1	n-Propylbenzene	9700		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
95-47-6	o-Xylene	10000		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
179601-23-1	p- & m- Xylenes	13000		ug/kg dry	840	1700	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
105-05-5	* p-Diethylbenzene	31000		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC



Sample Information

Client Sample ID: FP001_9ft

York Sample ID: 22L1175-01

York Project (SDG) No.
22L1175

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 20, 2022 12:00 pm

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
622-96-8	* p-Ethyltoluene	41000		ug/kg dry	2100	4200	500	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 12:49	BMC
99-87-6	p-Isopropyltoluene	7200		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
135-98-8	sec-Butylbenzene	7200		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
100-42-5	Styrene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
994-05-8	* tert-Amyl methyl ether (TAME)	ND		ug/kg dry	670	1300	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
98-06-6	tert-Butylbenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
127-18-4	Tetrachloroethylene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
109-99-9	* Tetrahydrofuran	ND		ug/kg dry	840	1700	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
108-88-3	Toluene	1200		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
79-01-6	Trichloroethylene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
108-05-4	Vinyl acetate	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:23	BMC
75-01-4	Vinyl Chloride	ND		ug/kg dry	420	840	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:23	BMC
1330-20-7	Xylenes, Total	23000		ug/kg dry	1300	2500	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 15:23	BMC
107-05-1	* Allyl chloride	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
123-86-4	* n-butyl acetate	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
75-45-6	* Chlorodifluoromethane (Freon 22)	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
493-01-6	* cis-decahydronaphthalene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
493-02-7	* trans-decahydronaphthalene	13000		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
124-18-5	* n-Decane	84000		ug/kg dry	2100	4200	500	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 12:49	BMC



Sample Information

Client Sample ID: FP001_9ft

York Sample ID: 22L1175-01

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 12:00 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
97-63-2	* Ethyl Methacrylate	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
67-72-1	* Hexachloroethane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
110-54-3	* n-Hexane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
5989-27-5	* Limonene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
98-95-3	* Nitrobenzene	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
79-46-9	* 2-Nitropropane	ND		ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
111-84-2	* n-Nonane	74000	QL-02	ug/kg dry	2100	4200	500	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 12:49	BMC
111-65-9	* n-octane	17000	CCVE, QL-02	ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
1120-21-4	* n-undecane	26000	QL-02	ug/kg dry	420	840	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
556-61-6	* Methyl Isothiocyanate (TIC)	ND		ug/kg dry	8400	8400	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:23	BMC
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	107 %			77-125						
2037-26-5	Surrogate: SURR: Toluene-d8	97.8 %			85-120						
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	136 %	S-03, S-08		76-130						

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
120-12-7	Anthracene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH



Sample Information

Client Sample ID: FP001_9ft

York Sample ID: 22L1175-01

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 12:00 pm

Date Received

12/21/2022

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
218-01-9	Chrysene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
206-44-0	Fluoranthene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
86-73-7	Fluorene	472		ug/kg dry	77.6	155	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
85-01-8	Phenanthrene	172		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
129-00-0	Pyrene	ND		ug/kg dry	77.6	155	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 20:51	KH
Surrogate Recoveries		Result		Acceptance Range							
4165-60-0	Surrogate: SURR: Nitrobenzene-d5	1380 %	S-08	22-108							
321-60-8	Surrogate: SURR: 2-Fluorobiphenyl	51.0 %		21-113							
1718-51-0	Surrogate: SURR: Terphenyl-d14	59.7 %		24-116							

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0305	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:17	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0305	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:17	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0305	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:17	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0305	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:17	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0305	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:17	BJ
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0305	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:17	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0305	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:17	BJ
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0305	1	EPA 8082A Certifications:	12/24/2022 10:46	12/29/2022 02:17	BJ
Surrogate Recoveries		Result	Acceptance Range							



Sample Information

Client Sample ID: FP001_9ft

York Sample ID: 22L1175-01

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 12:00 pm

Date Received

12/21/2022

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	Surrogate: Tetrachloro-m-xylene	66.5 %			30-120					
2051-24-3	Surrogate: Decachlorobiphenyl	106 %			30-120					

Metals, Suffolk Co. App. B

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	12.5		mg/kg dry	2.35	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7440-39-3	Barium	4360		mg/kg dry	3.91	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7440-41-7	Beryllium	0.173		mg/kg dry	0.078	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7440-43-9	Cadmium	ND		mg/kg dry	0.469	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7440-47-3	Chromium	64.3		mg/kg dry	0.782	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7440-50-8	Copper	7120		mg/kg dry	3.13	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7439-92-1	Lead	4920		mg/kg dry	0.782	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7440-02-0	Nickel	19.8		mg/kg dry	1.56	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7782-49-2	Selenium	ND		mg/kg dry	3.91	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW
7440-22-4	Silver	ND		mg/kg dry	0.782	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:19	CW

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.135		mg/kg dry	0.0563	1	EPA 7473 Certifications: CTDOH-PH-0723,NJDEP,NELAC-NY10854,PADEP	12/29/2022 09:11	12/29/2022 14:18	MR

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	53.3		%	0.100	1	SM 2540G Certifications: CTDOH-PH-0723	12/28/2022 10:09	12/28/2022 15:02	LAR



Sample Information

Client Sample ID: FP001_9ft

York Sample ID: 22L1175-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22L1175

SHD2201 BOMARC

Soil

December 20, 2022 12:00 pm

12/21/2022



Sample Information

Client Sample ID: FP002_8ft

York Sample ID: 22L1175-02

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 9:50 am

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 14:54	BMC
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 14:54	BMC
95-93-2	* 1,2,4,5-Tetramethylbenzene	1300		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
95-63-6	1,2,4-Trimethylbenzene	2500		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
108-67-8	1,3,5-Trimethylbenzene	1400		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC



Sample Information

Client Sample ID: FP002_8ft

York Sample ID: 22L1175-02

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 9:50 am

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
123-91-1	1,4-Dioxane	ND		ug/kg dry	6100	12000	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 14:54	BMC
78-93-3	2-Butanone	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
110-75-8	2-Chloroethylvinyl ether	ND		ug/kg dry	1200	2400	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
95-49-8	2-Chlorotoluene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
591-78-6	2-Hexanone	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
106-43-4	4-Chlorotoluene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
67-64-1	Acetone	ND		ug/kg dry	610	1200	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
107-02-8	Acrolein	ND		ug/kg dry	610	1200	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
107-13-1	Acrylonitrile	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
71-43-2	Benzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
108-86-1	Bromobenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
74-97-5	Bromochloromethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
75-27-4	Bromodichloromethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
75-25-2	Bromoform	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
74-83-9	Bromomethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
75-15-0	Carbon disulfide	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
56-23-5	Carbon tetrachloride	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
108-90-7	Chlorobenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
75-00-3	Chloroethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC



Sample Information

Client Sample ID: FP002_8ft

York Sample ID: 22L1175-02

York Project (SDG) No.
22L1175

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 20, 2022 9:50 am

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
74-87-3	Chloromethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
124-48-1	Dibromochloromethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
74-95-3	Dibromomethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
100-41-4	Ethyl Benzene	310	J	ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
60-29-7	* Ethyl Ether	ND		ug/kg dry	3000	6100	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
637-92-3	* Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	480	970	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
74-88-4	* Iodomethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
98-82-8	Isopropylbenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
80-62-6	Methyl Methacrylate	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
75-09-2	Methylene chloride	ND		ug/kg dry	610	1200	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
91-20-3	Naphthalene	1100	J	ug/kg dry	300	1200	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
104-51-8	n-Butylbenzene	1300		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
103-65-1	n-Propylbenzene	660		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
95-47-6	o-Xylene	710		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
179601-23-1	p- & m- Xylenes	860	J	ug/kg dry	610	1200	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
105-05-5	* p-Diethylbenzene	2900		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC



Sample Information

Client Sample ID: FP002_8ft

York Sample ID: 22L1175-02

York Project (SDG) No.
22L1175

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 20, 2022 9:50 am

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
622-96-8	* p-Ethyltoluene	2300		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
99-87-6	p-Isopropyltoluene	580	J	ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
135-98-8	sec-Butylbenzene	610		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
100-42-5	Styrene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
994-05-8	* tert-Amyl methyl ether (TAME)	ND		ug/kg dry	480	970	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
98-06-6	tert-Butylbenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
127-18-4	Tetrachloroethylene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
109-99-9	* Tetrahydrofuran	ND		ug/kg dry	610	1200	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
108-88-3	Toluene	540	J	ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
79-01-6	Trichloroethylene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
108-05-4	Vinyl acetate	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 14:54	BMC
75-01-4	Vinyl Chloride	ND		ug/kg dry	300	610	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 14:54	BMC
1330-20-7	Xylenes, Total	1600	J	ug/kg dry	910	1800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 14:54	BMC
107-05-1	* Allyl chloride	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
123-86-4	* n-butyl acetate	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
75-45-6	* Chlorodifluoromethane (Freon 22)	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
493-01-6	* cis-decahydronaphthalene	1100		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
493-02-7	* trans-decahydronaphthalene	5200		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
124-18-5	* n-Decane	9200		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC



Sample Information

Client Sample ID: FP002_8ft

York Sample ID: 22L1175-02

York Project (SDG) No.
22L1175

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 20, 2022 9:50 am

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
97-63-2	* Ethyl Methacrylate	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
67-72-1	* Hexachloroethane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
110-54-3	* n-Hexane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
5989-27-5	* Limonene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
98-95-3	* Nitrobenzene	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
79-46-9	* 2-Nitropropane	ND		ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
111-84-2	* n-Nonane	5600	QL-02	ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
111-65-9	* n-octane	1500	CCVE, QL-02	ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
1120-21-4	* n-undecane	6600	QL-02	ug/kg dry	300	610	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
556-61-6	* Methyl Isothiocyanate (TIC)	ND		ug/kg dry	6100	6100	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 14:54	BMC
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	108 %	77-125								
2037-26-5	Surrogate: SURR: Toluene-d8	97.9 %	85-120								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	118 %	76-130								

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
120-12-7	Anthracene	ND		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
205-99-2	Benzo(b)fluoranthene	69.6	J	ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH



Sample Information

Client Sample ID: FP002_8ft

York Sample ID: 22L1175-02

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 9:50 am

Date Received

12/21/2022

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
218-01-9	Chrysene	67.6	J	ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
206-44-0	Fluoranthene	136		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
86-73-7	Fluorene	74.8	J	ug/kg dry	64.2	128	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
85-01-8	Phenanthrene	112	J	ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
129-00-0	Pyrene	86.0	J	ug/kg dry	64.2	128	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/25/2022 11:01	12/26/2022 21:21	KH
Surrogate Recoveries		Result		Acceptance Range							
4165-60-0	Surrogate: SURR: Nitrobenzene-d5	436 %	S-08			22-108					
321-60-8	Surrogate: SURR: 2-Fluorobiphenyl	46.1 %				21-113					
1718-51-0	Surrogate: SURR: Terphenyl-d14	53.4 %				24-116					

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0254	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:30	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0254	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:30	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0254	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:30	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0254	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:30	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0254	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:30	BJ
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0254	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:30	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0254	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:46	12/29/2022 02:30	BJ
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0254	1	EPA 8082A Certifications:	12/24/2022 10:46	12/29/2022 02:30	BJ
Surrogate Recoveries		Result		Acceptance Range						



Sample Information

Client Sample ID: FP002_8ft

York Sample ID: 22L1175-02

York Project (SDG) No.

22L1175

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 20, 2022 9:50 am

Date Received

12/21/2022

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	Surrogate: Tetrachloro-m-xylene	75.5 %			30-120					
2051-24-3	Surrogate: Decachlorobiphenyl	97.0 %			30-120					

Metals, Suffolk Co. App. B

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	26.3		mg/kg dry	1.95	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7440-39-3	Barium	6210		mg/kg dry	3.25	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7440-41-7	Beryllium	0.293		mg/kg dry	0.065	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7440-43-9	Cadmium	1.53		mg/kg dry	0.390	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7440-47-3	Chromium	109		mg/kg dry	0.651	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7440-50-8	Copper	2890		mg/kg dry	2.60	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7439-92-1	Lead	843		mg/kg dry	0.651	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7440-02-0	Nickel	22.1		mg/kg dry	1.30	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7782-49-2	Selenium	ND		mg/kg dry	3.25	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW
7440-22-4	Silver	ND		mg/kg dry	0.651	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/28/2022 13:47	12/29/2022 11:22	CW

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	0.107		mg/kg dry	0.0469	1	EPA 7473 Certifications: CTDOH-PH-0723,NJDEP,NELAC-NY10854,PADEP	12/29/2022 09:11	12/29/2022 14:26	MR

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	64.0		%	0.100	1	SM 2540G Certifications: CTDOH-PH-0723	12/28/2022 10:09	12/28/2022 15:02	LAR



Sample Information

Client Sample ID: FP002_8ft

York Sample ID: 22L1175-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22L1175

SHD2201 BOMARC

Soil

December 20, 2022 9:50 am

12/21/2022



Analytical Batch Summary

Batch ID: BL21333 **Preparation Method:** EPA 5035A **Prepared By:** BMC

YORK Sample ID	Client Sample ID	Preparation Date
22L1175-01	FP001_9ft	12/29/22
22L1175-01RE1	FP001_9ft	12/29/22
22L1175-02	FP002_8ft	12/29/22
BL21333-BLK1	Blank	12/29/22
BL21333-BS1	LCS	12/29/22
BL21333-BS2	LCS	12/29/22
BL21333-BSD1	LCS Dup	12/29/22
BL21333-BSD2	LCS Dup	12/29/22

Batch ID: BL21455 **Preparation Method:** EPA 3550C **Prepared By:** FK

YORK Sample ID	Client Sample ID	Preparation Date
22L1175-01	FP001_9ft	12/24/22
22L1175-02	FP002_8ft	12/24/22
BL21455-BLK2	Blank	12/23/22
BL21455-BS2	LCS	12/23/22
BL21455-MS2	Matrix Spike	12/23/22
BL21455-MSD2	Matrix Spike Dup	12/23/22

Batch ID: BL21473 **Preparation Method:** EPA 3550C **Prepared By:** FK

YORK Sample ID	Client Sample ID	Preparation Date
22L1175-01	FP001_9ft	12/25/22
22L1175-02	FP002_8ft	12/25/22
BL21473-BLK1	Blank	12/24/22
BL21473-BS1	LCS	12/24/22
BL21473-MS1	Matrix Spike	12/24/22
BL21473-MSD1	Matrix Spike Dup	12/24/22

Batch ID: BL21612 **Preparation Method:** % Solids Prep **Prepared By:** LAR

YORK Sample ID	Client Sample ID	Preparation Date
22L1175-01	FP001_9ft	12/28/22
22L1175-02	FP002_8ft	12/28/22
BL21612-DUP1	Duplicate	12/28/22

Batch ID: BL21631 **Preparation Method:** EPA 3050B **Prepared By:** KMQ

YORK Sample ID	Client Sample ID	Preparation Date
22L1175-01	FP001_9ft	12/28/22
22L1175-02	FP002_8ft	12/28/22
BL21631-BLK1	Blank	12/28/22
BL21631-DUP1	Duplicate	12/28/22



BL21631-MS1	Matrix Spike	12/28/22
BL21631-PS1	Post Spike	12/28/22
BL21631-SRM1	Reference	12/28/22

Batch ID: BL21688 **Preparation Method:** EPA 7473 soil **Prepared By:** MR

YORK Sample ID	Client Sample ID	Preparation Date
22L1175-01	FP001_9ft	12/29/22
22L1175-02	FP002_8ft	12/29/22
BL21688-BLK1	Blank	12/29/22
BL21688-DUP1	Duplicate	12/29/22
BL21688-MS1	Matrix Spike	12/29/22
BL21688-SRM1	Reference	12/29/22



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21333 - EPA 5035A

Blank (BL21333-BLK1)

Prepared & Analyzed: 12/29/2022

1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet
1,1,1-Trichloroethane	ND	5.0	"
1,1,2,2-Tetrachloroethane	ND	5.0	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"
1,1,2-Trichloroethane	ND	5.0	"
1,1-Dichloroethane	ND	5.0	"
1,1-Dichloroethylene	ND	5.0	"
1,1-Dichloropropylene	ND	5.0	"
1,2,3-Trichlorobenzene	ND	5.0	"
1,2,3-Trichloropropane	ND	5.0	"
1,2,4,5-Tetramethylbenzene	ND	5.0	"
1,2,4-Trichlorobenzene	ND	5.0	"
1,2,4-Trimethylbenzene	ND	5.0	"
1,2-Dibromo-3-chloropropane	ND	5.0	"
1,2-Dibromoethane	ND	5.0	"
1,2-Dichlorobenzene	ND	5.0	"
1,2-Dichloroethane	ND	5.0	"
1,2-Dichloropropane	ND	5.0	"
1,3,5-Trimethylbenzene	ND	5.0	"
1,3-Dichlorobenzene	ND	5.0	"
1,3-Dichloropropane	ND	5.0	"
1,4-Dichlorobenzene	ND	5.0	"
1,4-Dioxane	ND	100	"
2,2-Dichloropropane	ND	5.0	"
2-Butanone	ND	5.0	"
2-Chloroethylvinyl ether	ND	20	"
2-Chlorotoluene	ND	5.0	"
2-Hexanone	ND	5.0	"
4-Chlorotoluene	ND	5.0	"
4-Methyl-2-pentanone	ND	5.0	"
Acetone	ND	10	"
Acrolein	ND	10	"
Acrylonitrile	ND	5.0	"
Benzene	ND	5.0	"
Bromobenzene	ND	5.0	"
Bromochloromethane	ND	5.0	"
Bromodichloromethane	ND	5.0	"
Bromoform	ND	5.0	"
Bromomethane	ND	5.0	"
Carbon disulfide	ND	5.0	"
Carbon tetrachloride	ND	5.0	"
Chlorobenzene	ND	5.0	"
Chloroethane	ND	5.0	"
Chloroform	ND	5.0	"
Chloromethane	ND	5.0	"
cis-1,2-Dichloroethylene	ND	5.0	"
cis-1,3-Dichloropropylene	ND	5.0	"
Dibromochloromethane	ND	5.0	"
Dibromomethane	ND	5.0	"
Dichlorodifluoromethane	ND	5.0	"



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21333 - EPA 5035A

Blank (BL21333-BLK1)

Prepared & Analyzed: 12/29/2022

Ethyl Benzene	ND	5.0	ug/kg wet								
Ethyl Ether	ND	50	"								
Ethyl tert-butyl ether (ETBE)	ND	8.0	"								
Hexachlorobutadiene	ND	5.0	"								
Iodomethane	ND	5.0	"								
Isopropylbenzene	ND	5.0	"								
Methyl Methacrylate	ND	5.0	"								
Methyl tert-butyl ether (MTBE)	ND	5.0	"								
Methylene chloride	ND	10	"								
Naphthalene	ND	10	"								
n-Butylbenzene	ND	5.0	"								
n-Propylbenzene	ND	5.0	"								
o-Xylene	ND	5.0	"								
p- & m- Xylenes	ND	10	"								
p-Diethylbenzene	ND	5.0	"								
p-Ethyltoluene	ND	5.0	"								
p-Isopropyltoluene	ND	5.0	"								
sec-Butylbenzene	ND	5.0	"								
Styrene	ND	5.0	"								
tert-Amyl methyl ether (TAME)	ND	8.0	"								
tert-Butylbenzene	ND	5.0	"								
Tetrachloroethylene	ND	5.0	"								
Tetrahydrofuran	ND	10	"								
Toluene	ND	5.0	"								
trans-1,2-Dichloroethylene	ND	5.0	"								
trans-1,3-Dichloropropylene	ND	5.0	"								
Trichloroethylene	ND	5.0	"								
Trichlorofluoromethane	ND	5.0	"								
Vinyl acetate	ND	5.0	"								
Vinyl Chloride	ND	5.0	"								
Xylenes, Total	ND	15	"								
Allyl chloride	ND	5.0	"								
n-butyl acetate	ND	5.0	"								
Chlorodifluoromethane (Freon 22)	ND	5.0	"								
cis-decahydronaphthalene	ND	5.0	"								
trans-decahydronaphthalene	ND	5.0	"								
n-Decane	ND	5.0	"								
Ethyl Methacrylate	ND	5.0	"								
Hexachloroethane	ND	5.0	"								
n-Hexane	ND	5.0	"								
Limonene	ND	5.0	"								
Nitrobenzene	ND	5.0	"								
2-Nitropropane	ND	5.0	"								
n-Nonane	ND	5.0	"								
n-octane	ND	5.0	"								
n-undecane	ND	5.0	"								
Methyl Isothiocyanate (TIC)	ND	50	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	54.2		ug/L	50.0		108	77-125				
Surrogate: SURR: Toluene-d8	47.8		"	50.0		95.7	85-120				
Surrogate: SURR: p-Bromofluorobenzene	54.5		"	50.0		109	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS (BL21333-BS1)						Prepared & Analyzed: 12/29/2022					
1,1,1,2-Tetrachloroethane	52		ug/L	50.0		104	75-129				
1,1,1-Trichloroethane	61		"	50.0		121	71-137				
1,1,2,2-Tetrachloroethane	62		"	50.0		123	79-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	51		"	50.0		103	58-146				
1,1,2-Trichloroethane	54		"	50.0		109	83-123				
1,1-Dichloroethane	53		"	50.0		106	75-130				
1,1-Dichloroethylene	51		"	50.0		103	64-137				
1,1-Dichloropropylene	57		"	50.0		113	77-127				
1,2,3-Trichlorobenzene	52		"	50.0		104	81-140				
1,2,3-Trichloropropane	57		"	50.0		114	81-126				
1,2,4,5-Tetramethylbenzene	61		"	50.0		123	63-156				
1,2,4-Trichlorobenzene	55		"	50.0		109	80-141				
1,2,4-Trimethylbenzene	54		"	50.0		109	84-125				
1,2-Dibromo-3-chloropropane	67		"	50.0		133	74-142				
1,2-Dibromoethane	57		"	50.0		115	86-123				
1,2-Dichlorobenzene	49		"	50.0		98.4	85-122				
1,2-Dichloroethane	57		"	50.0		115	71-133				
1,2-Dichloropropane	54		"	50.0		109	81-122				
1,3,5-Trimethylbenzene	52		"	50.0		105	82-126				
1,3-Dichlorobenzene	50		"	50.0		100	84-124				
1,3-Dichloropropane	56		"	50.0		112	83-123				
1,4-Dichlorobenzene	50		"	50.0		101	84-124				
1,4-Dioxane	1200		"	1050		116	10-228				
2,2-Dichloropropane	70		"	50.0		139	67-136	High Bias			
2-Butanone	62		"	50.0		125	58-147				
2-Chloroethylvinyl ether	64		"	50.0		129	10-166				
2-Chlorotoluene	56		"	50.0		112	78-127				
2-Hexanone	62		"	50.0		124	70-139				
4-Chlorotoluene	52		"	50.0		104	79-125				
4-Methyl-2-pentanone	60		"	50.0		120	72-132				
Acetone	54		"	50.0		108	36-155				
Acrolein	40		"	50.0		79.9	10-238				
Acrylonitrile	48		"	50.0		96.0	66-141				
Benzene	56		"	50.0		111	77-127				
Bromobenzene	58		"	50.0		115	77-129				
Bromochloromethane	61		"	50.0		122	74-129				
Bromodichloromethane	57		"	50.0		114	81-124				
Bromoform	46		"	50.0		91.2	80-136				
Bromomethane	44		"	50.0		87.3	32-177				
Carbon disulfide	54		"	50.0		109	10-136				
Carbon tetrachloride	59		"	50.0		117	66-143				
Chlorobenzene	54		"	50.0		108	86-120				
Chloroethane	52		"	50.0		104	51-142				
Chloroform	57		"	50.0		114	76-131				
Chloromethane	47		"	50.0		93.3	49-132				
cis-1,2-Dichloroethylene	53		"	50.0		105	74-132				
cis-1,3-Dichloropropylene	62		"	50.0		123	81-129				
Dibromochloromethane	55		"	50.0		110	10-200				
Dibromomethane	55		"	50.0		110	83-124				
Dichlorodifluoromethane	48		"	50.0		95.5	28-158				
Ethyl Benzene	52		"	50.0		105	84-125				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21333 - EPA 5035A

LCS (BL21333-BS1)

Prepared & Analyzed: 12/29/2022

Ethyl Ether	ND	50	ug/kg wet				70-130				
Ethyl tert-butyl ether (ETBE)	63		ug/L	50.0		125	70-130				
Hexachlorobutadiene	49		"	50.0		98.9	83-133				
Iodomethane	65		"	50.0		131	70-130	High Bias			
Isopropylbenzene	57		"	50.0		113	81-127				
Methyl Methacrylate	56		"	50.0		113	79-125				
Methyl tert-butyl ether (MTBE)	61		"	50.0		122	74-131				
Methylene chloride	52		"	50.0		105	57-141				
Naphthalene	58		"	50.0		116	86-141				
n-Butylbenzene	55		"	50.0		111	80-130				
n-Propylbenzene	57		"	50.0		114	74-136				
o-Xylene	54		"	50.0		108	83-123				
p- & m- Xylenes	100		"	100		103	82-128				
p-Diethylbenzene	58		"	50.0		116	70-144				
p-Ethyltoluene	59		"	50.0		118	84-123				
p-Isopropyltoluene	52		"	50.0		105	85-125				
sec-Butylbenzene	56		"	50.0		111	83-125				
Styrene	54		"	50.0		109	86-126				
tert-Amyl methyl ether (TAME)	75		"	50.0		150	70-130	High Bias			
tert-Butylbenzene	54		"	50.0		109	80-127				
Tetrachloroethylene	40		"	50.0		80.9	80-129				
Tetrahydrofuran	59		"	50.0		117	64-137				
Toluene	52		"	50.0		103	85-121				
trans-1,2-Dichloroethylene	55		"	50.0		111	72-132				
trans-1,3-Dichloropropylene	66		"	50.0		131	78-132				
Trichloroethylene	54		"	50.0		108	84-123				
Trichlorofluoromethane	53		"	50.0		106	62-140				
Vinyl acetate	79		"	50.0		157	67-136	High Bias			
Vinyl Chloride	47		"	50.0		95.0	52-130				
Allyl chloride	65		"	50.0		130	70-130				
n-butyl acetate	ND	5.0	ug/kg wet				70-130				
Chlorodifluoromethane (Freon 22)	ND	5.0	"				70-130				
cis-decahydronaphthalene	ND	5.0	"				70-130				
trans-decahydronaphthalene	ND	5.0	"				70-130				
n-Decane	ND	5.0	"				70-130				
Ethyl Methacrylate	57		ug/L	50.0		115	70-130				
Hexachloroethane	ND	5.0	ug/kg wet				70-130				
n-Hexane	ND	5.0	"				70-130				
Limonene	ND	5.0	"				70-130				
Nitrobenzene	50		ug/L	50.0		100	70-130				
2-Nitropropane	72	5.0	ug/kg wet				70-130				
n-Nonane	ND	5.0	"				70-130				
n-octane	ND	5.0	"				70-130				
n-undecane	ND	5.0	"				70-130				
Surrogate: SURR: 1,2-Dichloroethane-d4	53.3		ug/L	50.0		107	77-125				
Surrogate: SURR: Toluene-d8	48.7		"	50.0		97.4	85-120				
Surrogate: SURR: p-Bromofluorobenzene	58.4		"	50.0		117	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21333 - EPA 5035A

LCS (BL21333-BS2)

Prepared & Analyzed: 12/29/2022

1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet				75-129			
1,1,1-Trichloroethane	ND	5.0	"				71-137			
1,1,2,2-Tetrachloroethane	ND	5.0	"				79-129			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"				58-146			
1,1,2-Trichloroethane	ND	5.0	"				83-123			
1,1-Dichloroethane	ND	5.0	"				75-130			
1,1-Dichloroethylene	ND	5.0	"				64-137			
1,1-Dichloropropylene	ND	5.0	"				77-127			
1,2,3-Trichlorobenzene	ND	5.0	"				81-140			
1,2,3-Trichloropropane	ND	5.0	"				81-126			
1,2,4,5-Tetramethylbenzene	ND	5.0	"				63-156			
1,2,4-Trichlorobenzene	ND	5.0	"				80-141			
1,2,4-Trimethylbenzene	ND	5.0	"				84-125			
1,2-Dibromo-3-chloropropane	ND	5.0	"				74-142			
1,2-Dibromoethane	ND	5.0	"				86-123			
1,2-Dichlorobenzene	ND	5.0	"				85-122			
1,2-Dichloroethane	ND	5.0	"				71-133			
1,2-Dichloropropane	ND	5.0	"				81-122			
1,3,5-Trimethylbenzene	ND	5.0	"				82-126			
1,3-Dichlorobenzene	ND	5.0	"				84-124			
1,3-Dichloropropane	ND	5.0	"				83-123			
1,4-Dichlorobenzene	ND	5.0	"				84-124			
1,4-Dioxane	ND	100	"				10-228			
2,2-Dichloropropane	ND	5.0	"				67-136			
2-Butanone	ND	5.0	"				58-147			
2-Chloroethylvinyl ether	ND	20	"				10-166			
2-Chlorotoluene	ND	5.0	"				78-127			
2-Hexanone	ND	5.0	"				70-139			
4-Chlorotoluene	ND	5.0	"				79-125			
4-Methyl-2-pentanone	ND	5.0	"				72-132			
Acetone	ND	10	"				36-155			
Acrolein	ND	10	"				10-238			
Acrylonitrile	ND	5.0	"				66-141			
Benzene	ND	5.0	"				77-127			
Bromobenzene	ND	5.0	"				77-129			
Bromochloromethane	ND	5.0	"				74-129			
Bromodichloromethane	ND	5.0	"				81-124			
Bromoform	ND	5.0	"				80-136			
Bromomethane	ND	5.0	"				32-177			
Carbon disulfide	ND	5.0	"				10-136			
Carbon tetrachloride	ND	5.0	"				66-143			
Chlorobenzene	ND	5.0	"				86-120			
Chloroethane	ND	5.0	"				51-142			
Chloroform	ND	5.0	"				76-131			
Chloromethane	ND	5.0	"				49-132			
cis-1,2-Dichloroethylene	ND	5.0	"				74-132			
cis-1,3-Dichloropropylene	ND	5.0	"				81-129			
Dibromochloromethane	ND	5.0	"				10-200			
Dibromomethane	ND	5.0	"				83-124			
Dichlorodifluoromethane	ND	5.0	"				28-158			
Ethyl Benzene	ND	5.0	"				84-125			



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS (BL21333-BS2)						Prepared & Analyzed: 12/29/2022					
Ethyl Ether	570	50	ug/kg wet				70-130				
Ethyl tert-butyl ether (ETBE)	ND	8.0	"				70-130				
Hexachlorobutadiene	ND	5.0	"				83-133				
Iodomethane	ND	5.0	"				70-130				
Isopropylbenzene	ND	5.0	"				81-127				
Methyl Methacrylate	ND	5.0	"				79-125				
Methyl tert-butyl ether (MTBE)	ND	5.0	"				74-131				
Methylene chloride	ND	10	"				57-141				
Naphthalene	ND	10	"				86-141				
n-Butylbenzene	ND	5.0	"				80-130				
n-Propylbenzene	ND	5.0	"				74-136				
o-Xylene	ND	5.0	"				83-123				
p- & m- Xylenes	ND	10	"				82-128				
p-Diethylbenzene	ND	5.0	"				70-144				
p-Ethyltoluene	ND	5.0	"				84-123				
p-Isopropyltoluene	ND	5.0	"				85-125				
sec-Butylbenzene	ND	5.0	"				83-125				
Styrene	ND	5.0	"				86-126				
tert-Amyl methyl ether (TAME)	ND	8.0	"				70-130				
tert-Butylbenzene	ND	5.0	"				80-127				
Tetrachloroethylene	ND	5.0	"				80-129				
Tetrahydrofuran	ND	10	"				64-137				
Toluene	ND	5.0	"				85-121				
trans-1,2-Dichloroethylene	ND	5.0	"				72-132				
trans-1,3-Dichloropropylene	ND	5.0	"				78-132				
Trichloroethylene	ND	5.0	"				84-123				
Trichlorofluoromethane	ND	5.0	"				62-140				
Vinyl acetate	ND	5.0	"				67-136				
Vinyl Chloride	ND	5.0	"				52-130				
Allyl chloride	ND	5.0	"				70-130				
n-butyl acetate	65		ug/L	50.0		131	70-130	High Bias			
Chlorodifluoromethane (Freon 22)	560		"	50.0		NR	70-130	High Bias			
cis-decahydronaphthalene	49		"	50.0		98.5	70-130				
trans-decahydronaphthalene	48		"	50.0		96.8	70-130				
n-Decane	68	5.0	ug/kg wet				70-130				
Ethyl Methacrylate	ND	5.0	"				70-130				
Hexachloroethane	ND	5.0	"				70-130				
n-Hexane	66		ug/L	50.0		133	70-130	High Bias			
Limonene	51		"	50.0		102	70-130				
Nitrobenzene	ND	5.0	ug/kg wet				70-130				
2-Nitropropane	ND	5.0	"				70-130				
n-Nonane	80		ug/L	50.0		160	70-130	High Bias			
n-octane	78		"	50.0		155	70-130	High Bias			
n-undecane	68		"	50.0		136	70-130	High Bias			
Surrogate: SURR: 1,2-Dichloroethane-d4	65.1		"	50.0		130	77-125				
Surrogate: SURR: Toluene-d8	53.0		"	50.0		106	85-120				
Surrogate: SURR: p-Bromofluorobenzene	57.0		"	50.0		114	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS Dup (BL21333-BSD1)											
Prepared & Analyzed: 12/29/2022											
1,1,1,2-Tetrachloroethane	50		ug/L	50.0		99.1	75-129		4.54	30	
1,1,1-Trichloroethane	60		"	50.0		119	71-137		1.50	30	
1,1,2,2-Tetrachloroethane	59		"	50.0		119	79-129		3.71	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	51		"	50.0		102	58-146		0.940	30	
1,1,2-Trichloroethane	53		"	50.0		106	83-123		2.82	30	
1,1-Dichloroethane	53		"	50.0		105	75-130		0.341	30	
1,1-Dichloroethylene	50		"	50.0		99.1	64-137		3.82	30	
1,1-Dichloropropylene	56		"	50.0		112	77-127		0.924	30	
1,2,3-Trichlorobenzene	50		"	50.0		101	81-140		3.32	30	
1,2,3-Trichloropropane	55		"	50.0		110	81-126		3.11	30	
1,2,4,5-Tetramethylbenzene	60		"	50.0		121	63-156		1.57	30	
1,2,4-Trichlorobenzene	53		"	50.0		106	80-141		2.86	30	
1,2,4-Trimethylbenzene	53		"	50.0		106	84-125		2.42	30	
1,2-Dibromo-3-chloropropane	62		"	50.0		123	74-142		8.04	30	
1,2-Dibromoethane	57		"	50.0		113	86-123		1.35	30	
1,2-Dichlorobenzene	48		"	50.0		95.8	85-122		2.70	30	
1,2-Dichloroethane	58		"	50.0		115	71-133		0.295	30	
1,2-Dichloropropane	54		"	50.0		108	81-122		0.425	30	
1,3,5-Trimethylbenzene	51		"	50.0		103	82-126		2.23	30	
1,3-Dichlorobenzene	49		"	50.0		97.4	84-124		2.67	30	
1,3-Dichloropropane	55		"	50.0		111	83-123		1.11	30	
1,4-Dichlorobenzene	49		"	50.0		97.9	84-124		2.70	30	
1,4-Dioxane	1200		"	1050		116	10-228		0.220	30	
2,2-Dichloropropane	67		"	50.0		134	67-136		3.48	30	
2-Butanone	62		"	50.0		124	58-147		0.482	30	
2-Chloroethylvinyl ether	63		"	50.0		127	10-166		1.72	30	
2-Chlorotoluene	55		"	50.0		110	78-127		1.67	30	
2-Hexanone	58		"	50.0		115	70-139		7.30	30	
4-Chlorotoluene	51		"	50.0		102	79-125		1.15	30	
4-Methyl-2-pentanone	56		"	50.0		111	72-132		7.62	30	
Acetone	54		"	50.0		107	36-155		0.502	30	
Acrolein	39		"	50.0		77.8	10-238		2.74	30	
Acrylonitrile	48		"	50.0		95.5	66-141		0.522	30	
Benzene	55		"	50.0		111	77-127		0.216	30	
Bromobenzene	56		"	50.0		113	77-129		2.23	30	
Bromochloromethane	60		"	50.0		120	74-129		1.98	30	
Bromodichloromethane	56		"	50.0		112	81-124		1.88	30	
Bromoform	45		"	50.0		90.0	80-136		1.32	30	
Bromomethane	44		"	50.0		87.7	32-177		0.389	30	
Carbon disulfide	58		"	50.0		116	10-136		7.00	30	
Carbon tetrachloride	57		"	50.0		114	66-143		2.92	30	
Chlorobenzene	53		"	50.0		105	86-120		2.70	30	
Chloroethane	50		"	50.0		100	51-142		4.06	30	
Chloroform	56		"	50.0		112	76-131		1.82	30	
Chloromethane	48		"	50.0		96.5	49-132		3.44	30	
cis-1,2-Dichloroethylene	58		"	50.0		116	74-132		9.74	30	
cis-1,3-Dichloropropylene	60		"	50.0		120	81-129		2.80	30	
Dibromochloromethane	53		"	50.0		107	10-200		2.70	30	
Dibromomethane	54		"	50.0		109	83-124		0.659	30	
Dichlorodifluoromethane	47		"	50.0		93.2	28-158		2.44	30	
Ethyl Benzene	52		"	50.0		103	84-125		1.59	30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS Dup (BL21333-BSD1)						Prepared & Analyzed: 12/29/2022					
Ethyl Ether	ND	50	ug/kg wet				70-130			30	
Ethyl tert-butyl ether (ETBE)	62		ug/L	50.0		123	70-130		1.50	30	
Hexachlorobutadiene	48		"	50.0		96.1	83-133		2.89	30	
Iodomethane	68		"	50.0		136	70-130	High Bias	4.11	30	
Isopropylbenzene	55		"	50.0		111	81-127		2.09	30	
Methyl Methacrylate	54		"	50.0		109	79-125		3.40	30	
Methyl tert-butyl ether (MTBE)	61		"	50.0		122	74-131		0.246	30	
Methylene chloride	53		"	50.0		105	57-141		0.342	30	
Naphthalene	56		"	50.0		111	86-141		3.72	30	
n-Butylbenzene	54		"	50.0		108	80-130		2.32	30	
n-Propylbenzene	56		"	50.0		112	74-136		1.63	30	
o-Xylene	53		"	50.0		106	83-123		2.04	30	
p- & m- Xylenes	100		"	100		101	82-128		1.93	30	
p-Diethylbenzene	58		"	50.0		116	70-144		0.0860	30	
p-Ethyltoluene	57		"	50.0		115	84-123		2.65	30	
p-Isopropyltoluene	51		"	50.0		102	85-125		2.43	30	
sec-Butylbenzene	54		"	50.0		108	83-125		2.40	30	
Styrene	53		"	50.0		106	86-126		2.25	30	
tert-Amyl methyl ether (TAME)	74		"	50.0		147	70-130	High Bias	2.13	30	
tert-Butylbenzene	53		"	50.0		106	80-127		2.74	30	
Tetrachloroethylene	40		"	50.0		80.0	80-129		1.14	30	
Tetrahydrofuran	57		"	50.0		114	64-137		2.94	30	
Toluene	51		"	50.0		101	85-121		1.58	30	
trans-1,2-Dichloroethylene	55		"	50.0		110	72-132		0.199	30	
trans-1,3-Dichloropropylene	63		"	50.0		125	78-132		4.62	30	
Trichloroethylene	53		"	50.0		105	84-123		2.68	30	
Trichlorofluoromethane	54		"	50.0		108	62-140		1.62	30	
Vinyl acetate	71		"	50.0		143	67-136	High Bias	9.75	30	
Vinyl Chloride	48		"	50.0		95.2	52-130		0.273	30	
Allyl chloride	63		"	50.0		125	70-130		3.88	30	
n-butyl acetate	ND	5.0	ug/kg wet				70-130			30	
Chlorodifluoromethane (Freon 22)	ND	5.0	"				70-130			30	
cis-decahydronaphthalene	ND	5.0	"				70-130			30	
trans-decahydronaphthalene	ND	5.0	"				70-130			30	
n-Decane	ND	5.0	"				70-130			30	
Ethyl Methacrylate	58		ug/L	50.0		115	70-130		0.521	30	
Hexachloroethane	ND	5.0	ug/kg wet				70-130			30	
n-Hexane	ND	5.0	"				70-130			30	
Limonene	ND	5.0	"				70-130			30	
Nitrobenzene	50		ug/L	50.0		99.4	70-130		0.961	30	
2-Nitropropane	61	5.0	ug/kg wet				70-130		16.0	30	
n-Nonane	ND	5.0	"				70-130			30	
n-octane	ND	5.0	"				70-130			30	
n-undecane	ND	5.0	"				70-130			30	
Surrogate: SURR: 1,2-Dichloroethane-d4	54.1		ug/L	50.0		108	77-125				
Surrogate: SURR: Toluene-d8	48.6		"	50.0		97.1	85-120				
Surrogate: SURR: p-Bromofluorobenzene	58.1		"	50.0		116	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS Dup (BL21333-BSD2)						Prepared & Analyzed: 12/29/2022					
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet				75-129			30	
1,1,1-Trichloroethane	ND	5.0	"				71-137			30	
1,1,2,2-Tetrachloroethane	ND	5.0	"				79-129			30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"				58-146			30	
1,1,2-Trichloroethane	ND	5.0	"				83-123			30	
1,1-Dichloroethane	ND	5.0	"				75-130			30	
1,1-Dichloroethylene	ND	5.0	"				64-137			30	
1,1-Dichloropropylene	ND	5.0	"				77-127			30	
1,2,3-Trichlorobenzene	ND	5.0	"				81-140			30	
1,2,3-Trichloropropane	ND	5.0	"				81-126			30	
1,2,4,5-Tetramethylbenzene	ND	5.0	"				63-156			30	
1,2,4-Trichlorobenzene	ND	5.0	"				80-141			30	
1,2,4-Trimethylbenzene	ND	5.0	"				84-125			30	
1,2-Dibromo-3-chloropropane	ND	5.0	"				74-142			30	
1,2-Dibromoethane	ND	5.0	"				86-123			30	
1,2-Dichlorobenzene	ND	5.0	"				85-122			30	
1,2-Dichloroethane	ND	5.0	"				71-133			30	
1,2-Dichloropropane	ND	5.0	"				81-122			30	
1,3,5-Trimethylbenzene	ND	5.0	"				82-126			30	
1,3-Dichlorobenzene	ND	5.0	"				84-124			30	
1,3-Dichloropropane	ND	5.0	"				83-123			30	
1,4-Dichlorobenzene	ND	5.0	"				84-124			30	
1,4-Dioxane	ND	100	"				10-228			30	
2,2-Dichloropropane	ND	5.0	"				67-136			30	
2-Butanone	ND	5.0	"				58-147			30	
2-Chloroethylvinyl ether	ND	20	"				10-166			30	
2-Chlorotoluene	ND	5.0	"				78-127			30	
2-Hexanone	ND	5.0	"				70-139			30	
4-Chlorotoluene	ND	5.0	"				79-125			30	
4-Methyl-2-pentanone	ND	5.0	"				72-132			30	
Acetone	ND	10	"				36-155			30	
Acrolein	ND	10	"				10-238			30	
Acrylonitrile	ND	5.0	"				66-141			30	
Benzene	ND	5.0	"				77-127			30	
Bromobenzene	ND	5.0	"				77-129			30	
Bromochloromethane	ND	5.0	"				74-129			30	
Bromodichloromethane	ND	5.0	"				81-124			30	
Bromoform	ND	5.0	"				80-136			30	
Bromomethane	ND	5.0	"				32-177			30	
Carbon disulfide	ND	5.0	"				10-136			30	
Carbon tetrachloride	ND	5.0	"				66-143			30	
Chlorobenzene	ND	5.0	"				86-120			30	
Chloroethane	ND	5.0	"				51-142			30	
Chloroform	ND	5.0	"				76-131			30	
Chloromethane	ND	5.0	"				49-132			30	
cis-1,2-Dichloroethylene	ND	5.0	"				74-132			30	
cis-1,3-Dichloropropylene	ND	5.0	"				81-129			30	
Dibromochloromethane	ND	5.0	"				10-200			30	
Dibromomethane	ND	5.0	"				83-124			30	
Dichlorodifluoromethane	ND	5.0	"				28-158			30	
Ethyl Benzene	ND	5.0	"				84-125			30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS Dup (BL21333-BSD2)						Prepared & Analyzed: 12/29/2022					
Ethyl Ether	570	50	ug/kg wet				70-130		0.599	30	
Ethyl tert-butyl ether (ETBE)	ND	8.0	"				70-130			30	
Hexachlorobutadiene	ND	5.0	"				83-133			30	
Iodomethane	ND	5.0	"				70-130			30	
Isopropylbenzene	ND	5.0	"				81-127			30	
Methyl Methacrylate	ND	5.0	"				79-125			30	
Methyl tert-butyl ether (MTBE)	ND	5.0	"				74-131			30	
Methylene chloride	ND	10	"				57-141			30	
Naphthalene	ND	10	"				86-141			30	
n-Butylbenzene	ND	5.0	"				80-130			30	
n-Propylbenzene	ND	5.0	"				74-136			30	
o-Xylene	ND	5.0	"				83-123			30	
p- & m- Xylenes	ND	10	"				82-128			30	
p-Diethylbenzene	ND	5.0	"				70-144			30	
p-Ethyltoluene	ND	5.0	"				84-123			30	
p-Isopropyltoluene	ND	5.0	"				85-125			30	
sec-Butylbenzene	ND	5.0	"				83-125			30	
Styrene	ND	5.0	"				86-126			30	
tert-Amyl methyl ether (TAME)	ND	8.0	"				70-130			30	
tert-Butylbenzene	ND	5.0	"				80-127			30	
Tetrachloroethylene	ND	5.0	"				80-129			30	
Tetrahydrofuran	ND	10	"				64-137			30	
Toluene	ND	5.0	"				85-121			30	
trans-1,2-Dichloroethylene	ND	5.0	"				72-132			30	
trans-1,3-Dichloropropylene	ND	5.0	"				78-132			30	
Trichloroethylene	ND	5.0	"				84-123			30	
Trichlorofluoromethane	ND	5.0	"				62-140			30	
Vinyl acetate	ND	5.0	"				67-136			30	
Vinyl Chloride	ND	5.0	"				52-130			30	
Allyl chloride	ND	5.0	"				70-130			30	
n-butyl acetate	68		ug/L	50.0		136	70-130	High Bias	4.03	30	
Chlorodifluoromethane (Freon 22)	550		"	50.0		NR	70-130	High Bias	1.69	30	
cis-decahydronaphthalene	50		"	50.0		99.3	70-130		0.728	30	
trans-decahydronaphthalene	50		"	50.0		100	70-130		3.43	30	
n-Decane	69	5.0	ug/kg wet				70-130		2.20	30	
Ethyl Methacrylate	ND	5.0	"				70-130			30	
Hexachloroethane	ND	5.0	"				70-130			30	
n-Hexane	64		ug/L	50.0		128	70-130		3.48	30	
Limonene	52		"	50.0		104	70-130		1.93	30	
Nitrobenzene	ND	5.0	ug/kg wet				70-130			30	
2-Nitropropane	ND	5.0	"				70-130			30	
n-Nonane	82		ug/L	50.0		164	70-130	High Bias	2.32	30	
n-octane	78		"	50.0		157	70-130	High Bias	0.795	30	
n-undecane	71		"	50.0		142	70-130	High Bias	4.29	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	64.7		"	50.0		129	77-125				
Surrogate: SURR: Toluene-d8	54.0		"	50.0		108	85-120				
Surrogate: SURR: p-Bromofluorobenzene	57.1		"	50.0		114	76-130				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21473 - EPA 3550C

Blank (BL21473-BLK1)

Prepared: 12/24/2022 Analyzed: 12/26/2022

Acenaphthene	ND	41.7	ug/kg wet								
Anthracene	ND	41.7	"								
Benzo(a)anthracene	ND	41.7	"								
Benzo(a)pyrene	ND	41.7	"								
Benzo(b)fluoranthene	ND	41.7	"								
Benzo(g,h,i)perylene	ND	41.7	"								
Benzo(k)fluoranthene	ND	41.7	"								
Chrysene	ND	41.7	"								
Dibenzo(a,h)anthracene	ND	41.7	"								
Fluoranthene	ND	41.7	"								
Fluorene	ND	41.7	"								
Indeno(1,2,3-cd)pyrene	ND	41.7	"								
Phenanthrene	ND	41.7	"								
Pyrene	ND	41.7	"								
Surrogate: SURR: Nitrobenzene-d5	482		"	833		57.8	22-108				
Surrogate: SURR: 2-Fluorobiphenyl	438		"	833		52.6	21-113				
Surrogate: SURR: Terphenyl-d14	466		"	833		56.0	24-116				

LCS (BL21473-BS1)

Prepared: 12/24/2022 Analyzed: 12/26/2022

Acenaphthene	351	41.7	ug/kg wet	833		42.2	17-124				
Anthracene	381	41.7	"	833		45.7	24-124				
Benzo(a)anthracene	381	41.7	"	833		45.7	25-134				
Benzo(a)pyrene	391	41.7	"	833		46.9	29-144				
Benzo(b)fluoranthene	410	41.7	"	833		49.2	20-151				
Benzo(g,h,i)perylene	409	41.7	"	833		49.1	10-153				
Benzo(k)fluoranthene	417	41.7	"	833		50.0	10-148				
Chrysene	382	41.7	"	833		45.8	24-116				
Dibenzo(a,h)anthracene	394	41.7	"	833		47.3	17-147				
Fluoranthene	372	41.7	"	833		44.6	36-125				
Fluorene	367	41.7	"	833		44.1	16-130				
Indeno(1,2,3-cd)pyrene	396	41.7	"	833		47.5	10-155				
Phenanthrene	373	41.7	"	833		44.8	24-123				
Pyrene	342	41.7	"	833		41.1	24-132				
Surrogate: SURR: Nitrobenzene-d5	385		"	833		46.2	22-108				
Surrogate: SURR: 2-Fluorobiphenyl	346		"	833		41.6	21-113				
Surrogate: SURR: Terphenyl-d14	373		"	833		44.8	24-116				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21473 - EPA 3550C

Matrix Spike (BL21473-MS1)		*Source sample: 22L1128-05 (Matrix Spike)					Prepared: 12/24/2022 Analyzed: 12/26/2022				
Acenaphthene	425	95.0	ug/kg dry	950	ND	44.7	13-133				
Anthracene	494	95.0	"	950	ND	52.0	27-128				
Benzo(a)anthracene	501	95.0	"	950	ND	52.7	20-147				
Benzo(a)pyrene	508	95.0	"	950	ND	53.5	18-153				
Benzo(b)fluoranthene	542	95.0	"	950	ND	57.0	10-163				
Benzo(g,h,i)perylene	520	95.0	"	950	ND	54.7	10-157				
Benzo(k)fluoranthene	556	95.0	"	950	ND	58.6	10-157				
Chrysene	513	95.0	"	950	ND	54.0	18-133				
Dibenzo(a,h)anthracene	497	95.0	"	950	ND	52.3	10-146				
Fluoranthene	492	95.0	"	950	ND	51.8	10-155				
Fluorene	454	95.0	"	950	ND	47.8	12-150				
Indeno(1,2,3-cd)pyrene	504	95.0	"	950	ND	53.1	10-155				
Phenanthrene	485	95.0	"	950	ND	51.0	10-151				
Pyrene	443	95.0	"	950	ND	46.6	13-148				
Surrogate: SURR: Nitrobenzene-d5	459		"	950		48.3	22-108				
Surrogate: SURR: 2-Fluorobiphenyl	429		"	950		45.1	21-113				
Surrogate: SURR: Terphenyl-d14	501		"	950		52.8	24-116				

Matrix Spike Dup (BL21473-MSD1)		*Source sample: 22L1128-05 (Matrix Spike Dup)					Prepared: 12/24/2022 Analyzed: 12/26/2022				
Acenaphthene	354	95.0	ug/kg dry	950	ND	37.3	13-133	18.1	30		
Anthracene	393	95.0	"	950	ND	41.4	27-128	22.8	30		
Benzo(a)anthracene	384	95.0	"	950	ND	40.4	20-147	26.5	30		
Benzo(a)pyrene	394	95.0	"	950	ND	41.4	18-153	25.4	30		
Benzo(b)fluoranthene	410	95.0	"	950	ND	43.1	10-163	27.8	30		
Benzo(g,h,i)perylene	399	95.0	"	950	ND	42.0	10-157	26.3	30		
Benzo(k)fluoranthene	425	95.0	"	950	ND	44.8	10-157	26.6	30		
Chrysene	394	95.0	"	950	ND	41.5	18-133	26.1	30		
Dibenzo(a,h)anthracene	377	95.0	"	950	ND	39.7	10-146	27.5	30		
Fluoranthene	382	95.0	"	950	ND	40.2	10-155	25.2	30		
Fluorene	369	95.0	"	950	ND	38.9	12-150	20.5	30		
Indeno(1,2,3-cd)pyrene	381	95.0	"	950	ND	40.2	10-155	27.8	30		
Phenanthrene	389	95.0	"	950	ND	41.0	10-151	21.9	30		
Pyrene	343	95.0	"	950	ND	36.2	13-148	25.3	30		
Surrogate: SURR: Nitrobenzene-d5	394		"	950		41.5	22-108				
Surrogate: SURR: 2-Fluorobiphenyl	365		"	950		38.4	21-113				
Surrogate: SURR: Terphenyl-d14	406		"	950		42.7	24-116				



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21455 - EPA 3550C

Blank (BL21455-BLK2)

Prepared: 12/23/2022 Analyzed: 12/28/2022

Aroclor 1016	ND	0.0166	mg/kg wet								
Aroclor 1221	ND	0.0166	"								
Aroclor 1232	ND	0.0166	"								
Aroclor 1242	ND	0.0166	"								
Aroclor 1248	ND	0.0166	"								
Aroclor 1254	ND	0.0166	"								
Aroclor 1260	ND	0.0166	"								
Total PCBs	ND	0.0166	"								
Surrogate: Tetrachloro-m-xylene	0.0585		"	0.0664		88.0	30-120				
Surrogate: Decachlorobiphenyl	0.0535		"	0.0664		80.5	30-120				

LCS (BL21455-BS2)

Prepared: 12/23/2022 Analyzed: 12/28/2022

Aroclor 1016	0.319	0.0166	mg/kg wet	0.332		96.2	40-130				
Aroclor 1260	0.315	0.0166	"	0.332		94.8	40-130				
Surrogate: Tetrachloro-m-xylene	0.0708		"	0.0664		106	30-120				
Surrogate: Decachlorobiphenyl	0.0701		"	0.0664		106	30-120				

Matrix Spike (BL21455-MS2)

*Source sample: 22L1181-09 (Matrix Spike)

Prepared: 12/23/2022 Analyzed: 12/29/2022

Aroclor 1016	0.174	0.0174	mg/kg dry	0.348	ND	50.0	40-140				
Aroclor 1260	0.284	0.0174	"	0.348	ND	81.8	40-140				
Surrogate: Tetrachloro-m-xylene	0.0619		"	0.0695		89.0	30-120				
Surrogate: Decachlorobiphenyl	0.0591		"	0.0695		85.0	30-120				

Matrix Spike Dup (BL21455-MSD2)

*Source sample: 22L1181-09 (Matrix Spike Dup)

Prepared: 12/23/2022 Analyzed: 12/29/2022

Aroclor 1016	0.129	0.0174	mg/kg dry	0.348	ND	37.0	40-140	Low Bias	29.7	50	
Aroclor 1260	0.199	0.0174	"	0.348	ND	57.4	40-140		35.1	50	
Surrogate: Tetrachloro-m-xylene	0.0622		"	0.0695		89.5	30-120				
Surrogate: Decachlorobiphenyl	0.0580		"	0.0695		83.5	30-120				



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch S2L2849 - BL21455

Aroclor Reference (S2L2849-ARC1)

Prepared & Analyzed: 12/27/2022

Surrogate: Tetrachloro-m-xylene	0.200		ug/mL	0.200		100					
Surrogate: Decachlorobiphenyl	0.224		"	0.200		112					

Batch S2L2937 - BL21670

Aroclor Reference (S2L2937-ARC1)

Prepared & Analyzed: 12/28/2022

Surrogate: Tetrachloro-m-xylene	0.206		ug/mL	0.200		103					
Surrogate: Decachlorobiphenyl	0.194		"	0.200		97.0					



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21631 - EPA 3050B

Blank (BL21631-BLK1)

Prepared: 12/28/2022 Analyzed: 12/29/2022

Arsenic	ND	1.25	mg/kg wet
Barium	ND	2.08	"
Beryllium	ND	0.042	"
Cadmium	ND	0.250	"
Chromium	ND	0.417	"
Copper	ND	1.67	"
Lead	ND	0.417	"
Nickel	ND	0.833	"
Selenium	ND	2.08	"
Silver	ND	0.417	"

Duplicate (BL21631-DUP1)

*Source sample: 22L1181-02 (Duplicate)

Prepared: 12/28/2022 Analyzed: 12/29/2022

Arsenic	3.01	1.33	mg/kg dry	3.21	6.53	35
Barium	12.7	2.22	"	17.6	32.3	35
Beryllium	0.216	0.044	"	0.228	5.48	35
Cadmium	ND	0.266	"	ND		35
Chromium	7.18	0.444	"	9.41	27.0	35
Copper	7.70	1.78	"	7.62	1.02	35
Lead	18.6	0.444	"	15.7	17.3	35
Nickel	4.95	0.888	"	4.61	6.95	35
Selenium	ND	2.22	"	ND		35
Silver	ND	0.444	"	ND		35

Matrix Spike (BL21631-MS1)

*Source sample: 22L1181-02 (Matrix Spike)

Prepared: 12/28/2022 Analyzed: 12/29/2022

Arsenic	177	1.33	mg/kg dry	178	3.21	98.0	75-125
Barium	208	2.22	"	178	17.6	107	75-125
Beryllium	4.86	0.044	"	4.44	0.228	104	75-125
Cadmium	4.27	0.266	"	4.44	ND	96.1	75-125
Chromium	26.0	0.444	"	17.8	9.41	93.3	75-125
Copper	30.7	1.78	"	22.2	7.62	104	75-125
Lead	64.9	0.444	"	44.4	15.7	111	75-125
Nickel	54.7	0.888	"	44.4	4.61	113	75-125
Selenium	133	2.22	"	178	ND	74.9	75-125 Low Bias
Silver	2.34	0.444	"	4.44	ND	52.6	75-125 Low Bias



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21631 - EPA 3050B

Post Spike (BL21631-PS1)		*Source sample: 22L1181-02 (Post Spike)					Prepared: 12/28/2022 Analyzed: 12/29/2022				
Arsenic	2.41		ug/mL	2.00	0.036	119	75-125				
Barium	2.81		"	2.00	0.198	131	75-125	High Bias			
Beryllium	0.064		"	0.0500	0.003	123	75-125				
Cadmium	0.058		"	0.0500	0.00002	116	75-125				
Chromium	0.353		"	0.200	0.106	123	75-125				
Copper	0.408		"	0.250	0.086	129	75-125	High Bias			
Lead	0.791		"	0.500	0.177	123	75-125				
Nickel	0.688		"	0.500	0.052	127	75-125	High Bias			
Selenium	1.90		"	2.00	-0.078	95.0	75-125				
Silver	-0.012		"	0.0500	-0.034		75-125	Low Bias			

Reference (BL21631-SRM1)							Prepared: 12/28/2022 Analyzed: 12/29/2022				
Arsenic	92.6	1.25	mg/kg wet	87.4		106	70-130.4				
Barium	382	2.08	"	347		110	75.2-130.3				
Beryllium	109	0.042	"	103		106	74.8-132				
Cadmium	153	0.250	"	160		95.6	75-145.6				
Chromium	239	0.417	"	231		103	70.1-134.2				
Copper	164	1.67	"	144		114	75-126.4				
Lead	269	0.417	"	266		101	74.1-125.9				
Nickel	384	0.833	"	350		110	70-144				
Selenium	89.4	2.08	"	130		68.7	66.9-133.8				
Silver	57.8	0.417	"	57.1		101	70.2-129.8				



Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21688 - EPA 7473 soil										
Blank (BL21688-BLK1)								Prepared & Analyzed: 12/29/2022		
Mercury	ND	0.0300	mg/kg wet							
Duplicate (BL21688-DUP1)								Prepared & Analyzed: 12/29/2022		
Mercury	0.0478	0.0349	mg/kg dry		0.0669			33.3	35	
Matrix Spike (BL21688-MS1)								Prepared & Analyzed: 12/29/2022		
Mercury	0.490		mg/kg	0.500	0.0575	86.5	75-125			
Reference (BL21688-SRM1)								Prepared & Analyzed: 12/29/2022		
Mercury	23.699		mg/kg	27.2		87.1	59.9-140.1			



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD Limit	Flag

Batch BL21612 - % Solids Prep

Duplicate (BL21612-DUP1)	*Source sample: 22L1181-08 (Duplicate)						Prepared & Analyzed: 12/28/2022				
% Solids	93.8	0.100	%		94.6			0.764	20		



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
22L1175-01	FP001_9ft	40mL Pre-Tared Vial + 10mL MeOH; Cool to 4° C
22L1175-02	FP002_8ft	40mL Pre-Tared Vial + 10mL MeOH; Cool to 4° C



Sample and Data Qualifiers Relating to This Work Order

S-08	The recovery of this surrogate was outside of QC limits.
S-03	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. This effect was confirmed by reanalysis.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data are acceptable.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-SPKM	The spike recovery is not within acceptance windows due to sample non-homogeneity, or matrix interference.
M-PS	This Element exhibited recovery outside control limits for the Post Spike.
M-CRL	The RL check for this element recovered outside of control limits.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
CCVE	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.



If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



YORK Project No.

222175

Your signature binds you to YORK's Standard Terms & Conditions.

120 Research Drive Stratford, CT 06615 - 132-02 89th Ave Queens, NY 11418 - 56 Church Hill Rd. #2 Newtown, CT 06470
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Page 1 of 1

[illegible]



Technical Report

prepared for:

P.W. Grosser Consulting

630 Johnson Avenue, Suite 7

Bohemia NY, 11716

Attention: Thomas Melia

Report Date: 12/30/2022

Client Project ID: SHD2201 BOMARC

York Project (SDG) No.: 22L1187



CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037

New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

Report Date: 12/30/2022
Client Project ID: SHD2201 BOMARC
York Project (SDG) No.: 22L1187

P.W. Grosser Consulting
630 Johnson Avenue, Suite 7
Bohemia NY, 11716
Attention: Thomas Melia

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on December 21, 2022 and listed below. The project was identified as your project: **SHD2201 BOMARC**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
22L1187-01	S-16	Soil	12/21/2022	12/21/2022
22L1187-02	S-17 DW	Soil	12/21/2022	12/21/2022
22L1187-03	S-18	Soil	12/21/2022	12/21/2022
22L1187-04	S-3	Soil	12/21/2022	12/21/2022
22L1187-05	S-2	Soil	12/21/2022	12/21/2022

General Notes for York Project (SDG) No.: 22L1187

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By:



Cassie L. Mosher
Laboratory Manager

Date: 12/30/2022





Sample Information

Client Sample ID: S-16

York Sample ID: 22L1187-01

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 9:15 am

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 14:31	BMC
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 14:31	BMC
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC



Sample Information

Client Sample ID: S-16

York Sample ID: 22L1187-01

York Project (SDG) No.
22L1187

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 21, 2022 9:15 am

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
123-91-1	1,4-Dioxane	ND		ug/kg dry	100	200	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 14:31	BMC
78-93-3	2-Butanone	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
110-75-8	2-Chloroethylvinyl ether	ND		ug/kg dry	20	40	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
95-49-8	2-Chlorotoluene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
591-78-6	2-Hexanone	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
106-43-4	4-Chlorotoluene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
108-10-1	4-Methyl-2-pentanone	7.5	J	ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
67-64-1	Acetone	25		ug/kg dry	10	20	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
107-02-8	Acrolein	ND		ug/kg dry	10	20	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
107-13-1	Acrylonitrile	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
71-43-2	Benzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
108-86-1	Bromobenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
74-97-5	Bromochloromethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
75-27-4	Bromodichloromethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
75-25-2	Bromoform	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
74-83-9	Bromomethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
75-15-0	Carbon disulfide	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
56-23-5	Carbon tetrachloride	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
108-90-7	Chlorobenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
75-00-3	Chloroethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC



Sample Information

Client Sample ID: S-16

York Sample ID: 22L1187-01

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 9:15 am

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
74-87-3	Chloromethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
124-48-1	Dibromochloromethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
74-95-3	Dibromomethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
100-41-4	Ethyl Benzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
60-29-7	* Ethyl Ether	ND		ug/kg dry	50	100	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
637-92-3	* Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	8.0	16	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
74-88-4	* Iodomethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
98-82-8	Isopropylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
80-62-6	Methyl Methacrylate	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
75-09-2	Methylene chloride	ND		ug/kg dry	10	20	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
91-20-3	Naphthalene	ND		ug/kg dry	5.0	20	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
104-51-8	n-Butylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
103-65-1	n-Propylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
95-47-6	o-Xylene	5.2	J	ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	10	20	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
105-05-5	* p-Diethylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC



Sample Information

Client Sample ID: S-16

York Sample ID: 22L1187-01

York Project (SDG) No.
22L1187

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 21, 2022 9:15 am

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
622-96-8	* p-Ethyltoluene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
135-98-8	sec-Butylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
100-42-5	Styrene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
994-05-8	* tert-Amyl methyl ether (TAME)	ND		ug/kg dry	8.0	16	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
98-06-6	tert-Butylbenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
127-18-4	Tetrachloroethylene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
109-99-9	* Tetrahydrofuran	ND		ug/kg dry	10	20	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
108-88-3	Toluene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
79-01-6	Trichloroethylene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
108-05-4	Vinyl acetate	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:31	BMC
75-01-4	Vinyl Chloride	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:31	BMC
1330-20-7	Xylenes, Total	ND		ug/kg dry	15	30	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 14:31	BMC
107-05-1	* Allyl chloride	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
123-86-4	* n-butyl acetate	ND	CCVE	ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
75-45-6	* Chlorodifluoromethane (Freon 22)	ND	CCVE	ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
493-01-6	* cis-decahydronaphthalene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
493-02-7	* trans-decahydronaphthalene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
124-18-5	* n-Decane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC



Sample Information

Client Sample ID: S-16

York Sample ID: 22L1187-01

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

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Soil

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December 21, 2022 9:15 am

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
97-63-2	* Ethyl Methacrylate	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
67-72-1	* Hexachloroethane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
110-54-3	* n-Hexane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
5989-27-5	* Limonene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
98-95-3	* Nitrobenzene	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
79-46-9	* 2-Nitropropane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
111-84-2	* n-Nonane	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
111-65-9	* n-octane	ND	CCVE	ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
1120-21-4	* n-undecane	10	QL-02	ug/kg dry	5.0	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC
556-61-6	* Methyl Isothiocyanate (TIC)	ND		ug/kg dry	100	100	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:31	BMC

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	109 %	77-125
2037-26-5	Surrogate: SURR: Toluene-d8	103 %	85-120
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	124 %	76-130

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	678		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
120-12-7	Anthracene	1310		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
56-55-3	Benzo(a)anthracene	2860		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
50-32-8	Benzo(a)pyrene	1640		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
205-99-2	Benzo(b)fluoranthene	1730		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
191-24-2	Benzo(g,h,i)perylene	1360		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH



Sample Information

Client Sample ID: S-16

York Sample ID: 22L1187-01

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

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Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	1490		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
218-01-9	Chrysene	3090		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
53-70-3	Dibenzo(a,h)anthracene	388	J	ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
206-44-0	Fluoranthene	7120		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
86-73-7	Fluorene	759		ug/kg dry	283	565	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
193-39-5	Indeno(1,2,3-cd)pyrene	1610		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
85-01-8	Phenanthrene	6800		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
129-00-0	Pyrene	7210		ug/kg dry	283	565	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 10:48	KH
Surrogate Recoveries		Result		Acceptance Range							
4165-60-0	Surrogate: SURR: Nitrobenzene-d5	26.0 %				22-108					
321-60-8	Surrogate: SURR: 2-Fluorobiphenyl	14.8 %	S-01			21-113					
1718-51-0	Surrogate: SURR: Terphenyl-d14	20.0 %	S-01			24-116					

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	11.1	500	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:35	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	11.1	500	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:35	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	11.1	500	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:35	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	11.1	500	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:35	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	11.1	500	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:35	BJ
11097-69-1	Aroclor 1254	326		mg/kg dry	11.1	500	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:35	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	11.1	500	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:35	BJ
1336-36-3	* Total PCBs	326		mg/kg dry	11.1	500	EPA 8082A Certifications:	12/24/2022 10:48	12/30/2022 14:35	BJ
Surrogate Recoveries		Result		Acceptance Range						



Sample Information

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PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	Surrogate: Tetrachloro-m-xylene	%	S-06		30-120					
2051-24-3	Surrogate: Decachlorobiphenyl	250 %	S-06		30-120					

Metals, Suffolk Co. App. B

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	27.8		mg/kg dry	1.70	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7440-39-3	Barium	235		mg/kg dry	2.83	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7440-41-7	Beryllium	0.141		mg/kg dry	0.057	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7440-43-9	Cadmium	31.7		mg/kg dry	0.340	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7440-47-3	Chromium	178		mg/kg dry	0.567	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7440-50-8	Copper	305		mg/kg dry	2.27	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7439-92-1	Lead	4860		mg/kg dry	0.567	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7440-02-0	Nickel	114		mg/kg dry	1.13	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7782-49-2	Selenium	ND		mg/kg dry	2.83	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW
7440-22-4	Silver	ND		mg/kg dry	0.567	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:12	CW

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	9.21		mg/kg dry	0.0408	1	EPA 7473 Certifications: CTDOH-PH-0723,NJDEP,NELAC-NY10854,PADEP	12/29/2022 14:46	12/29/2022 17:30	MR

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	73.5		%	0.100	1	SM 2540G Certifications: CTDOH-PH-0723	12/28/2022 12:50	12/28/2022 15:10	LAR



Sample Information

Client Sample ID: S-16

York Sample ID: 22L1187-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22L1187

SHD2201 BOMARC

Soil

December 21, 2022 9:15 am

12/21/2022



Sample Information

Client Sample ID: S-17 DW

York Sample ID: 22L1187-02

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 10:30 am

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 14:57	BMC
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 14:57	BMC
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC



Sample Information

Client Sample ID: S-17 DW

York Sample ID: 22L1187-02

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 10:30 am

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
123-91-1	1,4-Dioxane	ND		ug/kg dry	57	110	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 14:57	BMC
78-93-3	2-Butanone	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
110-75-8	2-Chloroethylvinyl ether	ND		ug/kg dry	11	23	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
95-49-8	2-Chlorotoluene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
591-78-6	2-Hexanone	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
106-43-4	4-Chlorotoluene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
67-64-1	Acetone	21		ug/kg dry	5.7	11	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
107-02-8	Acrolein	ND		ug/kg dry	5.7	11	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
107-13-1	Acrylonitrile	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
71-43-2	Benzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
108-86-1	Bromobenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
74-97-5	Bromochloromethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
75-25-2	Bromoform	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
74-83-9	Bromomethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
75-15-0	Carbon disulfide	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
108-90-7	Chlorobenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
75-00-3	Chloroethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC



Sample Information

Client Sample ID: S-17 DW

York Sample ID: 22L1187-02

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 10:30 am

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
74-87-3	Chloromethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
74-95-3	Dibromomethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
60-29-7	* Ethyl Ether	ND		ug/kg dry	29	57	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
637-92-3	* Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.6	9.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
74-88-4	* Iodomethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
80-62-6	Methyl Methacrylate	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
75-09-2	Methylene chloride	ND		ug/kg dry	5.7	11	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
91-20-3	Naphthalene	ND		ug/kg dry	2.9	11	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
95-47-6	o-Xylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	5.7	11	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
105-05-5	* p-Diethylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC



Sample Information

Client Sample ID: S-17 DW

York Sample ID: 22L1187-02

York Project (SDG) No.
22L1187

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 21, 2022 10:30 am

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
622-96-8	* p-Ethyltoluene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
100-42-5	Styrene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
994-05-8	* tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.6	9.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
127-18-4	Tetrachloroethylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
109-99-9	* Tetrahydrofuran	ND		ug/kg dry	5.7	11	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
108-88-3	Toluene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
79-01-6	Trichloroethylene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
108-05-4	Vinyl acetate	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 14:57	BMC
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 14:57	BMC
1330-20-7	Xylenes, Total	ND		ug/kg dry	8.6	17	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 14:57	BMC
107-05-1	* Allyl chloride	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
123-86-4	* n-butyl acetate	ND	CCVE	ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
75-45-6	* Chlorodifluoromethane (Freon 22)	ND	CCVE	ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
493-01-6	* cis-decahydronaphthalene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
493-02-7	* trans-decahydronaphthalene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
124-18-5	* n-Decane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC



Sample Information

Client Sample ID: S-17 DW

York Sample ID: 22L1187-02

York Project (SDG) No.
22L1187

Client Project ID
SHD2201 BOMARC

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Soil

Collection Date/Time
December 21, 2022 10:30 am

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
97-63-2	* Ethyl Methacrylate	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
67-72-1	* Hexachloroethane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
110-54-3	* n-Hexane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
5989-27-5	* Limonene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
98-95-3	* Nitrobenzene	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
79-46-9	* 2-Nitropropane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
111-84-2	* n-Nonane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
111-65-9	* n-octane	ND	CCVE	ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
1120-21-4	* n-undecane	ND		ug/kg dry	2.9	5.7	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC
556-61-6	* Methyl Isothiocyanate (TIC)	ND		ug/kg dry	57	57	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 14:57	BMC

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	109 %	77-125
2037-26-5	Surrogate: SURR: Toluene-d8	99.8 %	85-120
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	115 %	76-130

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	227	452	10	EPA 8270D Certifications:	12/24/2022 11:32	12/27/2022 11:18	KH
120-12-7	Anthracene	293	J	ug/kg dry	227	452	10	EPA 8270D Certifications:	12/24/2022 11:32	12/27/2022 11:18	KH
56-55-3	Benzo(a)anthracene	2270		ug/kg dry	227	452	10	EPA 8270D Certifications:	12/24/2022 11:32	12/27/2022 11:18	KH
50-32-8	Benzo(a)pyrene	1970		ug/kg dry	227	452	10	EPA 8270D Certifications:	12/24/2022 11:32	12/27/2022 11:18	KH
205-99-2	Benzo(b)fluoranthene	1930		ug/kg dry	227	452	10	EPA 8270D Certifications:	12/24/2022 11:32	12/27/2022 11:18	KH
191-24-2	Benzo(g,h,i)perylene	1210		ug/kg dry	227	452	10	EPA 8270D Certifications:	12/24/2022 11:32	12/27/2022 11:18	KH



Sample Information

Client Sample ID: S-17 DW

York Sample ID: 22L1187-02

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 10:30 am

Date Received

12/21/2022

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	1720		ug/kg dry	227	452	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:18	KH
218-01-9	Chrysene	2300		ug/kg dry	227	452	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:18	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	227	452	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:18	KH
206-44-0	Fluoranthene	2610		ug/kg dry	227	452	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:18	KH
86-73-7	Fluorene	ND		ug/kg dry	227	452	10	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:18	KH
193-39-5	Indeno(1,2,3-cd)pyrene	1630		ug/kg dry	227	452	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:18	KH
85-01-8	Phenanthrene	763		ug/kg dry	227	452	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:18	KH
129-00-0	Pyrene	3200		ug/kg dry	227	452	10	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:18	KH
Surrogate Recoveries		Result		Acceptance Range							
4165-60-0	Surrogate: SURR: Nitrobenzene-d5	507 %	S-01		22-108						
321-60-8	Surrogate: SURR: 2-Fluorobiphenyl	405 %	S-01		21-113						
1718-51-0	Surrogate: SURR: Terphenyl-d14	466 %	S-01		24-116						

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:49	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:49	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:49	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:49	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:49	BJ
11097-69-1	Aroclor 1254	0.531		mg/kg dry	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:49	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0181	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 14:49	BJ
1336-36-3	* Total PCBs	0.531		mg/kg dry	0.0181	1	EPA 8082A Certifications:	12/24/2022 10:48	12/30/2022 14:49	BJ
Surrogate Recoveries		Result		Acceptance Range						



Sample Information

Client Sample ID: S-17 DW

York Sample ID: 22L1187-02

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 10:30 am

Date Received

12/21/2022

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	Surrogate: Tetrachloro-m-xylene	68.0 %			30-120					
2051-24-3	Surrogate: Decachlorobiphenyl	67.5 %			30-120					

Metals, Suffolk Co. App. B

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	2.60		mg/kg dry	1.36	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7440-39-3	Barium	6.91		mg/kg dry	2.27	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7440-41-7	Beryllium	0.089		mg/kg dry	0.045	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7440-43-9	Cadmium	ND		mg/kg dry	0.272	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7440-47-3	Chromium	9.52		mg/kg dry	0.453	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7440-50-8	Copper	22.6		mg/kg dry	1.81	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7439-92-1	Lead	12.2		mg/kg dry	0.453	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7440-02-0	Nickel	2.27		mg/kg dry	0.907	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7782-49-2	Selenium	ND		mg/kg dry	2.27	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW
7440-22-4	Silver	ND		mg/kg dry	0.453	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:14	CW

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0326	1	EPA 7473 Certifications: CTDOH-PH-0723,NJDEP,NELAC-NY10854,PADEP	12/29/2022 14:46	12/29/2022 17:43	MR

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	91.9		%	0.100	1	SM 2540G Certifications: CTDOH-PH-0723	12/28/2022 12:50	12/28/2022 15:10	LAR



Sample Information

Client Sample ID: S-17 DW

York Sample ID: 22L1187-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22L1187

SHD2201 BOMARC

Soil

December 21, 2022 10:30 am

12/21/2022



Sample Information

Client Sample ID: S-18

York Sample ID: 22L1187-03

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 11:10 am

Date Received

12/21/2022

Lead TCLP by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	0.897		mg/L	0.125	1	EPA 6010D/1311	12/27/2022 07:48	12/27/2022 14:08	CW
							Certifications:	CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP		

TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes: EXT-Temp

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1	EPA 1311	12/22/2022 16:59	12/23/2022 12:33	AGNR
							Certifications:	NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP		



Sample Information

Client Sample ID: S-3

York Sample ID: 22L1187-04

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 12:00 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 15:52	BMC
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 15:52	BMC
95-93-2	* 1,2,4,5-Tetramethylbenzene	17000		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
120-82-1	1,2,4-Trichlorobenzene	8600		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
95-63-6	1,2,4-Trimethylbenzene	41000		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
95-50-1	1,2-Dichlorobenzene	1300000		ug/kg dry	28000	56000	2000	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 13:18	BMC
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
108-67-8	1,3,5-Trimethylbenzene	16000		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
541-73-1	1,3-Dichlorobenzene	19000		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC



Sample Information

Client Sample ID: S-3

York Sample ID: 22L1187-04

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

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Collection Date/Time

December 21, 2022 12:00 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	410000		ug/kg dry	28000	56000	2000	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 13:18	BMC
123-91-1	1,4-Dioxane	ND		ug/kg dry	28000	56000	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 15:52	BMC
78-93-3	2-Butanone	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
110-75-8	2-Chloroethylvinyl ether	ND		ug/kg dry	5600	11000	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
95-49-8	2-Chlorotoluene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
591-78-6	2-Hexanone	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
106-43-4	4-Chlorotoluene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
67-64-1	Acetone	ND		ug/kg dry	2800	5600	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
107-02-8	Acrolein	ND		ug/kg dry	2800	5600	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
107-13-1	Acrylonitrile	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
71-43-2	Benzene	2100	J	ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
108-86-1	Bromobenzene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
74-97-5	Bromochloromethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
75-27-4	Bromodichloromethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
75-25-2	Bromoform	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
74-83-9	Bromomethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
75-15-0	Carbon disulfide	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
56-23-5	Carbon tetrachloride	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
108-90-7	Chlorobenzene	660000		ug/kg dry	28000	56000	2000	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 13:18	BMC
75-00-3	Chloroethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC



Sample Information

Client Sample ID: S-3

York Sample ID: 22L1187-04

York Project (SDG) No.
22L1187

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 21, 2022 12:00 pm

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
74-87-3	Chloromethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
124-48-1	Dibromochloromethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
74-95-3	Dibromomethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
100-41-4	Ethyl Benzene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
60-29-7	* Ethyl Ether	ND		ug/kg dry	14000	28000	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
637-92-3	* Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	2200	4400	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
74-88-4	* Iodomethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
98-82-8	Isopropylbenzene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
80-62-6	Methyl Methacrylate	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
75-09-2	Methylene chloride	ND		ug/kg dry	2800	5600	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
91-20-3	Naphthalene	39000		ug/kg dry	1400	5600	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
104-51-8	n-Butylbenzene	9600		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
103-65-1	n-Propylbenzene	4000		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
95-47-6	o-Xylene	2500	J	ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
179601-23-1	p- & m- Xylenes	4500	J	ug/kg dry	2800	5600	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
105-05-5	* p-Diethylbenzene	23000		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC



Sample Information

Client Sample ID: S-3

York Sample ID: 22L1187-04

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 12:00 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
622-96-8	* p-Ethyltoluene	21000		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
99-87-6	p-Isopropyltoluene	5000		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
135-98-8	sec-Butylbenzene	3300		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
100-42-5	Styrene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
994-05-8	* tert-Amyl methyl ether (TAME)	ND		ug/kg dry	2200	4400	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
98-06-6	tert-Butylbenzene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
127-18-4	Tetrachloroethylene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
109-99-9	* Tetrahydrofuran	ND		ug/kg dry	2800	5600	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
108-88-3	Toluene	2300	J	ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
79-01-6	Trichloroethylene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
108-05-4	Vinyl acetate	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/29/2022 06:56	12/29/2022 15:52	BMC
75-01-4	Vinyl Chloride	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/29/2022 06:56	12/29/2022 15:52	BMC
1330-20-7	Xylenes, Total	7000	J	ug/kg dry	4200	8300	100	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/29/2022 06:56	12/29/2022 15:52	BMC
107-05-1	* Allyl chloride	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
123-86-4	* n-butyl acetate	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
75-45-6	* Chlorodifluoromethane (Freon 22)	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
493-01-6	* cis-decahydronaphthalene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
493-02-7	* trans-decahydronaphthalene	8000		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
124-18-5	* n-Decane	30000		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC



Sample Information

Client Sample ID: S-3

York Sample ID: 22L1187-04

York Project (SDG) No.
22L1187

Client Project ID
SHD2201 BOMARC

Matrix
Soil

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December 21, 2022 12:00 pm

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
97-63-2	* Ethyl Methacrylate	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
67-72-1	* Hexachloroethane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
110-54-3	* n-Hexane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
5989-27-5	* Limonene	13000		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
98-95-3	* Nitrobenzene	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
79-46-9	* 2-Nitropropane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
111-84-2	* n-Nonane	16000	QL-02	ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
111-65-9	* n-octane	ND		ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
1120-21-4	* n-undecane	8900	QL-02	ug/kg dry	1400	2800	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
556-61-6	* Methyl Isothiocyanate (TIC)	ND		ug/kg dry	28000	28000	100	EPA 8260C Certifications:	12/29/2022 06:56	12/29/2022 15:52	BMC
Surrogate Recoveries		Result		Acceptance Range							
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	103 %									
2037-26-5	Surrogate: SURR: Toluene-d8	100 %									
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	137 %	S-03, S-08								

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
120-12-7	Anthracene	808		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
56-55-3	Benzo(a)anthracene	567		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
50-32-8	Benzo(a)pyrene	243		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
205-99-2	Benzo(b)fluoranthene	233		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH



Sample Information

Client Sample ID: S-3

York Sample ID: 22L1187-04

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 12:00 pm

Date Received

12/21/2022

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	138	J	ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
218-01-9	Chrysene	718		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
206-44-0	Fluoranthene	ND		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
86-73-7	Fluorene	1660		ug/kg dry	99.6	199	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
85-01-8	Phenanthrene	4450		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
129-00-0	Pyrene	2250		ug/kg dry	99.6	199	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 11:47	KH
Surrogate Recoveries		Result	Acceptance Range								
4165-60-0	Surrogate: SURR: Nitrobenzene-d5	14.2 %	S-08	22-108							
321-60-8	Surrogate: SURR: 2-Fluorobiphenyl	6.08 %	S-08	21-113							
1718-51-0	Surrogate: SURR: Terphenyl-d14	16.2 %	S-08	24-116							

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0397	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:03	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0397	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:03	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0397	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:03	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0397	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:03	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0397	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:03	BJ
11097-69-1	Aroclor 1254	0.285		mg/kg dry	0.0397	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:03	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0397	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:03	BJ
1336-36-3	* Total PCBs	0.285		mg/kg dry	0.0397	1	EPA 8082A Certifications:	12/24/2022 10:48	12/30/2022 15:03	BJ
Surrogate Recoveries		Result	Acceptance Range							



Sample Information

Client Sample ID: S-3

York Sample ID: 22L1187-04

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 12:00 pm

Date Received

12/21/2022

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	Surrogate: Tetrachloro-m-xylene	42.5 %			30-120					
2051-24-3	Surrogate: Decachlorobiphenyl	43.0 %			30-120					

Metals, Suffolk Co. App. B

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/kg dry	2.99	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7440-39-3	Barium	158		mg/kg dry	4.98	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7440-41-7	Beryllium	ND		mg/kg dry	0.100	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7440-43-9	Cadmium	8.28		mg/kg dry	0.598	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7440-47-3	Chromium	158		mg/kg dry	0.996	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7440-50-8	Copper	761		mg/kg dry	3.98	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7439-92-1	Lead	145		mg/kg dry	0.996	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7440-02-0	Nickel	24.5		mg/kg dry	1.99	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7782-49-2	Selenium	ND		mg/kg dry	4.98	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW
7440-22-4	Silver	5.15		mg/kg dry	0.996	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:17	CW

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	1.92		mg/kg dry	0.0717	1	EPA 7473 Certifications: CTDOH-PH-0723,NJDEP,NELAC-NY10854,PADEP	12/30/2022 09:30	12/30/2022 11:02	MR

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	41.8		%	0.100	1	SM 2540G Certifications: CTDOH-PH-0723	12/28/2022 12:50	12/28/2022 15:10	LAR



Sample Information

Client Sample ID: S-3

York Sample ID: 22L1187-04

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

22L1187

SHD2201 BOMARC

Soil

December 21, 2022 12:00 pm

12/21/2022



Sample Information

Client Sample ID: S-2

York Sample ID: 22L1187-05

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 12:35 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 16:15	BMC
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 16:15	BMC
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
95-50-1	1,2-Dichlorobenzene	15		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC



Sample Information

Client Sample ID: S-2

York Sample ID: 22L1187-05

York Project (SDG) No.
22L1187

Client Project ID
SHD2201 BOMARC

Matrix
Soil

Collection Date/Time
December 21, 2022 12:35 pm

Date Received
12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	6.3		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
123-91-1	1,4-Dioxane	ND		ug/kg dry	52	100	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	12/23/2022 09:39	12/23/2022 16:15	BMC
78-93-3	2-Butanone	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
110-75-8	2-Chloroethylvinyl ether	ND		ug/kg dry	10	21	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
95-49-8	2-Chlorotoluene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
591-78-6	2-Hexanone	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
106-43-4	4-Chlorotoluene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
67-64-1	Acetone	6.8	J	ug/kg dry	5.2	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
107-02-8	Acrolein	ND		ug/kg dry	5.2	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
107-13-1	Acrylonitrile	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
71-43-2	Benzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
108-86-1	Bromobenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
74-97-5	Bromochloromethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
75-25-2	Bromoform	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
74-83-9	Bromomethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
75-15-0	Carbon disulfide	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
108-90-7	Chlorobenzene	10		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
75-00-3	Chloroethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC



Sample Information

Client Sample ID: S-2

York Sample ID: 22L1187-05

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 12:35 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
74-87-3	Chloromethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
74-95-3	Dibromomethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
60-29-7	* Ethyl Ether	ND		ug/kg dry	26	52	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
637-92-3	* Ethyl tert-butyl ether (ETBE)	ND		ug/kg dry	4.2	8.3	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
74-88-4	* Iodomethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
80-62-6	Methyl Methacrylate	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
75-09-2	Methylene chloride	ND		ug/kg dry	5.2	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
91-20-3	Naphthalene	ND		ug/kg dry	2.6	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	12/23/2022 09:39	12/23/2022 16:15	BMC
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
95-47-6	o-Xylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	5.2	10	1	EPA 8260C Certifications: CTDOH-PH-0723,NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	12/23/2022 09:39	12/23/2022 16:15	BMC
105-05-5	* p-Diethylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC



Sample Information

Client Sample ID: S-2

York Sample ID: 22L1187-05

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

Collection Date/Time

December 21, 2022 12:35 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
622-96-8	* p-Ethyltoluene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
100-42-5	Styrene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
994-05-8	* tert-Amyl methyl ether (TAME)	ND		ug/kg dry	4.2	8.3	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
127-18-4	Tetrachloroethylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
109-99-9	* Tetrahydrofuran	ND		ug/kg dry	5.2	10	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
108-88-3	Toluene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
79-01-6	Trichloroethylene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
108-05-4	Vinyl acetate	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
1330-20-7	Xylenes, Total	ND		ug/kg dry	7.8	16	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
107-05-1	* Allyl chloride	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
123-86-4	* n-butyl acetate	ND	CCVE	ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
75-45-6	* Chlorodifluoromethane (Freon 22)	ND	CCVE	ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
493-01-6	* cis-decahydronaphthalene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
493-02-7	* trans-decahydronaphthalene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
124-18-5	* n-Decane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC



Sample Information

Client Sample ID: S-2

York Sample ID: 22L1187-05

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

Matrix

Soil

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December 21, 2022 12:35 pm

Date Received

12/21/2022

Volatile Organics, Suffolk Co. App.A DHS List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
97-63-2	* Ethyl Methacrylate	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
67-72-1	* Hexachloroethane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
110-54-3	* n-Hexane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
5989-27-5	* Limonene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
98-95-3	* Nitrobenzene	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
79-46-9	* 2-Nitropropane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
111-84-2	* n-Nonane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
111-65-9	* n-octane	ND	CCVE	ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
1120-21-4	* n-undecane	ND		ug/kg dry	2.6	5.2	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC
556-61-6	* Methyl Isothiocyanate (TIC)	ND		ug/kg dry	52	52	1	EPA 8260C Certifications:	12/23/2022 09:39	12/23/2022 16:15	BMC

Surrogate Recoveries		Result	Acceptance Range
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	112 %	77-125
2037-26-5	Surrogate: SURR: Toluene-d8	100 %	85-120
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	121 %	76-130

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
120-12-7	Anthracene	83.3	J	ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
56-55-3	Benzo(a)anthracene	453		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
50-32-8	Benzo(a)pyrene	314		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
205-99-2	Benzo(b)fluoranthene	332		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
191-24-2	Benzo(g,h,i)perylene	280		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH



Sample Information

Client Sample ID: S-2

York Sample ID: 22L1187-05

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

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December 21, 2022 12:35 pm

Date Received

12/21/2022

Semi-Volatiles, Suffolk Co. DHS App. A List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
207-08-9	Benzo(k)fluoranthene	268		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
218-01-9	Chrysene	522		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
53-70-3	Dibenzo(a,h)anthracene	48.6	J	ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
206-44-0	Fluoranthene	972		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
86-73-7	Fluorene	ND		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
193-39-5	Indeno(1,2,3-cd)pyrene	359		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
85-01-8	Phenanthrene	443		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
129-00-0	Pyrene	1100		ug/kg dry	46.2	92.2	2	EPA 8270D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/24/2022 11:32	12/27/2022 15:15	KH
Surrogate Recoveries		Result	Acceptance Range								
4165-60-0	Surrogate: SURR: Nitrobenzene-d5	74.6 %	22-108								
321-60-8	Surrogate: SURR: 2-Fluorobiphenyl	61.3 %	21-113								
1718-51-0	Surrogate: SURR: Terphenyl-d14	77.9 %	24-116								

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:16	BJ
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:16	BJ
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:16	BJ
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:16	BJ
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:16	BJ
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:16	BJ
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0182	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH-PH-0723,NJDEP,PADEP	12/24/2022 10:48	12/30/2022 15:16	BJ
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0182	1	EPA 8082A Certifications:	12/24/2022 10:48	12/30/2022 15:16	BJ
Surrogate Recoveries		Result	Acceptance Range							



Sample Information

Client Sample ID: S-2

York Sample ID: 22L1187-05

York Project (SDG) No.

22L1187

Client Project ID

SHD2201 BOMARC

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December 21, 2022 12:35 pm

Date Received

12/21/2022

PCB, 8082 MASTER

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
877-09-8	Surrogate: Tetrachloro-m-xylene	66.5 %			30-120					
2051-24-3	Surrogate: Decachlorobiphenyl	62.5 %			30-120					

Metals, Suffolk Co. App. B

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/kg dry	1.39	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7440-39-3	Barium	10.8		mg/kg dry	2.31	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7440-41-7	Beryllium	0.100		mg/kg dry	0.046	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7440-43-9	Cadmium	ND		mg/kg dry	0.277	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7440-47-3	Chromium	4.54		mg/kg dry	0.462	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7440-50-8	Copper	10.5		mg/kg dry	1.85	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7439-92-1	Lead	18.5		mg/kg dry	0.462	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7440-02-0	Nickel	3.35		mg/kg dry	0.924	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7782-49-2	Selenium	ND		mg/kg dry	2.31	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW
7440-22-4	Silver	ND		mg/kg dry	0.462	1	EPA 6010D Certifications: CTDOH-PH-0723,NELAC-NY10854,NJDEP,PADEP	12/29/2022 13:51	12/30/2022 11:20	CW

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0333	1	EPA 7473 Certifications: CTDOH-PH-0723,NJDEP,NELAC-NY10854,PADEP	12/30/2022 09:30	12/30/2022 12:18	MR

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	90.2		%	0.100	1	SM 2540G Certifications: CTDOH-PH-0723	12/28/2022 12:50	12/28/2022 15:10	LAR



Sample Information

Client Sample ID: S-2

York Sample ID: 22L1187-05

York Project (SDG) No.

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22L1187

SHD2201 BOMARC

Soil

December 21, 2022 12:35 pm

12/21/2022



Analytical Batch Summary

Batch ID: BL21326 **Preparation Method:** EPA 5035A **Prepared By:** BMC

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-01	S-16	12/23/22
22L1187-02	S-17 DW	12/23/22
22L1187-05	S-2	12/23/22
BL21326-BLK1	Blank	12/23/22
BL21326-BS1	LCS	12/23/22
BL21326-BS2	LCS	12/23/22
BL21326-BSD1	LCS Dup	12/23/22
BL21326-BSD2	LCS Dup	12/23/22

Batch ID: BL21333 **Preparation Method:** EPA 5035A **Prepared By:** BMC

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-04	S-3	12/29/22
22L1187-04RE1	S-3	12/29/22
BL21333-BLK1	Blank	12/29/22
BL21333-BS1	LCS	12/29/22
BL21333-BS2	LCS	12/29/22
BL21333-BSD1	LCS Dup	12/29/22
BL21333-BSD2	LCS Dup	12/29/22

Batch ID: BL21370 **Preparation Method:** EPA SW 846-1311 TCLP ext. for metals **Prepared By:** TAJ

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-03	S-18	12/22/22
BL21370-BLK1	Blank	12/22/22

Batch ID: BL21456 **Preparation Method:** EPA 3550C **Prepared By:** FK

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-01	S-16	12/24/22
22L1187-02	S-17 DW	12/24/22
22L1187-04	S-3	12/24/22
22L1187-05	S-2	12/24/22
BL21456-BLK2	Blank	12/23/22
BL21456-BS2	LCS	12/23/22
BL21456-MS2	Matrix Spike	12/23/22
BL21456-MSD2	Matrix Spike Dup	12/23/22

Batch ID: BL21479 **Preparation Method:** EPA 3550C **Prepared By:** RST

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-01	S-16	12/24/22
22L1187-02	S-17 DW	12/24/22



22L1187-04	S-3	12/24/22
22L1187-05	S-2	12/24/22
BL21479-MS1	Matrix Spike	12/24/22
BL21479-MSD1	Matrix Spike Dup	12/24/22

Batch ID: BL21499 **Preparation Method:** EPA 3015A/1311 **Prepared By:** MCS

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-03	S-18	12/27/22
BL21499-BLK1	Blank	12/27/22
BL21499-BS1	LCS	12/27/22
BL21499-DUP1	Duplicate	12/27/22
BL21499-LBK1	Leach Fluid Blank	12/27/22
BL21499-MS1	Matrix Spike	12/27/22
BL21499-PS1	Post Spike	12/27/22

Batch ID: BL21621 **Preparation Method:** % Solids Prep **Prepared By:** LAR

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-01	S-16	12/28/22
22L1187-02	S-17 DW	12/28/22
22L1187-04	S-3	12/28/22
22L1187-05	S-2	12/28/22
BL21621-DUP1	Duplicate	12/28/22

Batch ID: BL21707 **Preparation Method:** EPA 3050B **Prepared By:** KMQ

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-01	S-16	12/29/22
22L1187-02	S-17 DW	12/29/22
22L1187-04	S-3	12/29/22
22L1187-05	S-2	12/29/22
BL21707-BLK1	Blank	12/29/22
BL21707-DUP1	Duplicate	12/29/22
BL21707-MS1	Matrix Spike	12/29/22
BL21707-PS1	Post Spike	12/29/22
BL21707-SRM1	Reference	12/29/22

Batch ID: BL21717 **Preparation Method:** EPA 7473 soil **Prepared By:** MR

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-01	S-16	12/29/22
22L1187-02	S-17 DW	12/29/22
BL21717-BLK1	Blank	12/29/22
BL21717-DUP1	Duplicate	12/29/22
BL21717-MS1	Matrix Spike	12/29/22
BL21717-SRM1	Reference	12/29/22



Batch ID: BL21753 **Preparation Method:** EPA 7473 soil **Prepared By:** MR

YORK Sample ID	Client Sample ID	Preparation Date
22L1187-04	S-3	12/30/22
22L1187-05	S-2	12/30/22
BL21753-BLK1	Blank	12/30/22
BL21753-DUP1	Duplicate	12/30/22
BL21753-MS1	Matrix Spike	12/30/22
BL21753-SRM1	Reference	12/30/22



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21326 - EPA 5035A

Blank (BL21326-BLK1)

Prepared & Analyzed: 12/23/2022

1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet
1,1,1-Trichloroethane	ND	5.0	"
1,1,2,2-Tetrachloroethane	ND	5.0	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"
1,1,2-Trichloroethane	ND	5.0	"
1,1-Dichloroethane	ND	5.0	"
1,1-Dichloroethylene	ND	5.0	"
1,1-Dichloropropylene	ND	5.0	"
1,2,3-Trichlorobenzene	ND	5.0	"
1,2,3-Trichloropropane	ND	5.0	"
1,2,4,5-Tetramethylbenzene	ND	5.0	"
1,2,4-Trichlorobenzene	ND	5.0	"
1,2,4-Trimethylbenzene	ND	5.0	"
1,2-Dibromo-3-chloropropane	ND	5.0	"
1,2-Dibromoethane	ND	5.0	"
1,2-Dichlorobenzene	ND	5.0	"
1,2-Dichloroethane	ND	5.0	"
1,2-Dichloropropane	ND	5.0	"
1,3,5-Trimethylbenzene	ND	5.0	"
1,3-Dichlorobenzene	ND	5.0	"
1,3-Dichloropropane	ND	5.0	"
1,4-Dichlorobenzene	ND	5.0	"
1,4-Dioxane	ND	100	"
2,2-Dichloropropane	ND	5.0	"
2-Butanone	ND	5.0	"
2-Chloroethylvinyl ether	ND	20	"
2-Chlorotoluene	ND	5.0	"
2-Hexanone	ND	5.0	"
4-Chlorotoluene	ND	5.0	"
4-Methyl-2-pentanone	ND	5.0	"
Acetone	ND	10	"
Acrolein	ND	10	"
Acrylonitrile	ND	5.0	"
Benzene	ND	5.0	"
Bromobenzene	ND	5.0	"
Bromochloromethane	ND	5.0	"
Bromodichloromethane	ND	5.0	"
Bromoform	ND	5.0	"
Bromomethane	ND	5.0	"
Carbon disulfide	ND	5.0	"
Carbon tetrachloride	ND	5.0	"
Chlorobenzene	ND	5.0	"
Chloroethane	ND	5.0	"
Chloroform	ND	5.0	"
Chloromethane	ND	5.0	"
cis-1,2-Dichloroethylene	ND	5.0	"
cis-1,3-Dichloropropylene	ND	5.0	"
Dibromochloromethane	ND	5.0	"
Dibromomethane	ND	5.0	"
Dichlorodifluoromethane	ND	5.0	"



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21326 - EPA 5035A

Blank (BL21326-BLK1)

Prepared & Analyzed: 12/23/2022

Ethyl Benzene	ND	5.0	ug/kg wet								
Ethyl Ether	ND	50	"								
Ethyl tert-butyl ether (ETBE)	ND	8.0	"								
Hexachlorobutadiene	ND	5.0	"								
Iodomethane	ND	5.0	"								
Isopropylbenzene	ND	5.0	"								
Methyl Methacrylate	ND	5.0	"								
Methyl tert-butyl ether (MTBE)	ND	5.0	"								
Methylene chloride	ND	10	"								
Naphthalene	ND	10	"								
n-Butylbenzene	ND	5.0	"								
n-Propylbenzene	ND	5.0	"								
o-Xylene	ND	5.0	"								
p- & m- Xylenes	ND	10	"								
p-Diethylbenzene	ND	5.0	"								
p-Ethyltoluene	ND	5.0	"								
p-Isopropyltoluene	ND	5.0	"								
sec-Butylbenzene	ND	5.0	"								
Styrene	ND	5.0	"								
tert-Amyl methyl ether (TAME)	ND	8.0	"								
tert-Butylbenzene	ND	5.0	"								
Tetrachloroethylene	ND	5.0	"								
Tetrahydrofuran	ND	10	"								
Toluene	ND	5.0	"								
trans-1,2-Dichloroethylene	ND	5.0	"								
trans-1,3-Dichloropropylene	ND	5.0	"								
Trichloroethylene	ND	5.0	"								
Trichlorofluoromethane	ND	5.0	"								
Vinyl acetate	ND	5.0	"								
Vinyl Chloride	ND	5.0	"								
Xylenes, Total	ND	15	"								
Allyl chloride	ND	5.0	"								
n-butyl acetate	ND	5.0	"								
Chlorodifluoromethane (Freon 22)	ND	5.0	"								
cis-decahydronaphthalene	ND	5.0	"								
trans-decahydronaphthalene	ND	5.0	"								
n-Decane	ND	5.0	"								
Ethyl Methacrylate	ND	5.0	"								
Hexachloroethane	ND	5.0	"								
n-Hexane	ND	5.0	"								
Limonene	ND	5.0	"								
Nitrobenzene	ND	5.0	"								
2-Nitropropane	ND	5.0	"								
n-Nonane	ND	5.0	"								
n-octane	ND	5.0	"								
n-undecane	ND	5.0	"								
Methyl Isothiocyanate (TIC)	ND	50	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	51.4		ug/L	50.0		103	77-125				
Surrogate: SURR: Toluene-d8	51.1		"	50.0		102	85-120				
Surrogate: SURR: p-Bromofluorobenzene	57.9		"	50.0		116	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21326 - EPA 5035A											
LCS (BL21326-BS1)						Prepared & Analyzed: 12/23/2022					
1,1,1,2-Tetrachloroethane	47		ug/L	50.0		93.2	75-129				
1,1,1-Trichloroethane	46		"	50.0		93.0	71-137				
1,1,2,2-Tetrachloroethane	46		"	50.0		92.3	79-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	40		"	50.0		80.8	58-146				
1,1,2-Trichloroethane	44		"	50.0		87.7	83-123				
1,1-Dichloroethane	42		"	50.0		84.6	75-130				
1,1-Dichloroethylene	41		"	50.0		81.1	64-137				
1,1-Dichloropropylene	44		"	50.0		87.3	77-127				
1,2,3-Trichlorobenzene	40		"	50.0		80.0	81-140	Low Bias			
1,2,3-Trichloropropane	44		"	50.0		87.4	81-126				
1,2,4,5-Tetramethylbenzene	47		"	50.0		93.6	63-156				
1,2,4-Trichlorobenzene	42		"	50.0		83.1	80-141				
1,2,4-Trimethylbenzene	44		"	50.0		88.8	84-125				
1,2-Dibromo-3-chloropropane	49		"	50.0		98.4	74-142				
1,2-Dibromoethane	45		"	50.0		89.9	86-123				
1,2-Dichlorobenzene	45		"	50.0		90.8	85-122				
1,2-Dichloroethane	46		"	50.0		92.1	71-133				
1,2-Dichloropropane	46		"	50.0		92.0	81-122				
1,3,5-Trimethylbenzene	46		"	50.0		91.2	82-126				
1,3-Dichlorobenzene	43		"	50.0		86.4	84-124				
1,3-Dichloropropane	45		"	50.0		91.0	83-123				
1,4-Dichlorobenzene	42		"	50.0		85.0	84-124				
1,4-Dioxane	1100		"	1050		106	10-228				
2,2-Dichloropropane	43		"	50.0		86.2	67-136				
2-Butanone	40		"	50.0		80.6	58-147				
2-Chloroethylvinyl ether	86		"	50.0		171	10-166	High Bias			
2-Chlorotoluene	45		"	50.0		89.4	78-127				
2-Hexanone	47		"	50.0		93.8	70-139				
4-Chlorotoluene	47		"	50.0		94.3	79-125				
4-Methyl-2-pentanone	36		"	50.0		72.9	72-132				
Acetone	34		"	50.0		67.3	36-155				
Acrolein	40		"	50.0		79.9	10-238				
Acrylonitrile	46		"	50.0		92.1	66-141				
Benzene	46		"	50.0		91.5	77-127				
Bromobenzene	43		"	50.0		86.6	77-129				
Bromochloromethane	47		"	50.0		94.1	74-129				
Bromodichloromethane	47		"	50.0		93.6	81-124				
Bromoform	43		"	50.0		86.3	80-136				
Bromomethane	74		"	50.0		149	32-177				
Carbon disulfide	42		"	50.0		85.0	10-136				
Carbon tetrachloride	47		"	50.0		94.2	66-143				
Chlorobenzene	47		"	50.0		95.0	86-120				
Chloroethane	74		"	50.0		149	51-142	High Bias			
Chloroform	46		"	50.0		91.1	76-131				
Chloromethane	55		"	50.0		110	49-132				
cis-1,2-Dichloroethylene	43		"	50.0		86.7	74-132				
cis-1,3-Dichloropropylene	45		"	50.0		91.0	81-129				
Dibromochloromethane	42		"	50.0		84.6	10-200				
Dibromomethane	46		"	50.0		92.5	83-124				
Dichlorodifluoromethane	37		"	50.0		73.8	28-158				
Ethyl Benzene	46		"	50.0		92.0	84-125				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21326 - EPA 5035A											
LCS (BL21326-BS1)						Prepared & Analyzed: 12/23/2022					
Ethyl Ether	ND	50	ug/kg wet				70-130				
Ethyl tert-butyl ether (ETBE)	38		ug/L	50.0		75.4	70-130				
Hexachlorobutadiene	41		"	50.0		82.4	83-133	Low Bias			
Iodomethane	42		"	50.0		83.9	70-130				
Isopropylbenzene	46		"	50.0		92.0	81-127				
Methyl Methacrylate	45		"	50.0		89.4	79-125				
Methyl tert-butyl ether (MTBE)	40		"	50.0		80.0	74-131				
Methylene chloride	44		"	50.0		87.1	57-141				
Naphthalene	43		"	50.0		86.6	86-141				
n-Butylbenzene	48		"	50.0		95.3	80-130				
n-Propylbenzene	47		"	50.0		93.6	74-136				
o-Xylene	46		"	50.0		91.6	83-123				
p- & m- Xylenes	97		"	100		96.8	82-128				
p-Diethylbenzene	49		"	50.0		97.8	70-144				
p-Ethyltoluene	50		"	50.0		100	84-123				
p-Isopropyltoluene	46		"	50.0		92.2	85-125				
sec-Butylbenzene	46		"	50.0		92.4	83-125				
Styrene	46		"	50.0		92.5	86-126				
tert-Amyl methyl ether (TAME)	40		"	50.0		80.4	70-130				
tert-Butylbenzene	38		"	50.0		76.8	80-127	Low Bias			
Tetrachloroethylene	39		"	50.0		78.7	80-129	Low Bias			
Tetrahydrofuran	51		"	50.0		101	64-137				
Toluene	46		"	50.0		92.4	85-121				
trans-1,2-Dichloroethylene	43		"	50.0		85.8	72-132				
trans-1,3-Dichloropropylene	46		"	50.0		92.1	78-132				
Trichloroethylene	44		"	50.0		88.6	84-123				
Trichlorofluoromethane	66		"	50.0		132	62-140				
Vinyl acetate	43		"	50.0		86.6	67-136				
Vinyl Chloride	65		"	50.0		129	52-130				
Allyl chloride	45		"	50.0		89.4	70-130				
n-butyl acetate	ND	5.0	ug/kg wet				70-130				
Chlorodifluoromethane (Freon 22)	ND	5.0	"				70-130				
cis-decahydronaphthalene	ND	5.0	"				70-130				
trans-decahydronaphthalene	ND	5.0	"				70-130				
n-Decane	ND	5.0	"				70-130				
Ethyl Methacrylate	44		ug/L	50.0		87.8	70-130				
Hexachloroethane	ND	5.0	ug/kg wet				70-130				
n-Hexane	ND	5.0	"				70-130				
Limonene	ND	5.0	"				70-130				
Nitrobenzene	63		ug/L	50.0		126	70-130				
2-Nitropropane	52	5.0	ug/kg wet				70-130				
n-Nonane	ND	5.0	"				70-130				
n-octane	ND	5.0	"				70-130				
n-undecane	ND	5.0	"				70-130				
Surrogate: SURR: 1,2-Dichloroethane-d4	49.5		ug/L	50.0		98.9	77-125				
Surrogate: SURR: Toluene-d8	51.1		"	50.0		102	85-120				
Surrogate: SURR: p-Bromofluorobenzene	48.2		"	50.0		96.4	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21326 - EPA 5035A

LCS (BL21326-BS2)

Prepared & Analyzed: 12/23/2022

1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet				75-129				
1,1,1-Trichloroethane	ND	5.0	"				71-137				
1,1,2,2-Tetrachloroethane	ND	5.0	"				79-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"				58-146				
1,1,2-Trichloroethane	ND	5.0	"				83-123				
1,1-Dichloroethane	ND	5.0	"				75-130				
1,1-Dichloroethylene	ND	5.0	"				64-137				
1,1-Dichloropropylene	ND	5.0	"				77-127				
1,2,3-Trichlorobenzene	ND	5.0	"				81-140				
1,2,3-Trichloropropane	ND	5.0	"				81-126				
1,2,4,5-Tetramethylbenzene	ND	5.0	"				63-156				
1,2,4-Trichlorobenzene	ND	5.0	"				80-141				
1,2,4-Trimethylbenzene	ND	5.0	"				84-125				
1,2-Dibromo-3-chloropropane	ND	5.0	"				74-142				
1,2-Dibromoethane	ND	5.0	"				86-123				
1,2-Dichlorobenzene	ND	5.0	"				85-122				
1,2-Dichloroethane	ND	5.0	"				71-133				
1,2-Dichloropropane	ND	5.0	"				81-122				
1,3,5-Trimethylbenzene	ND	5.0	"				82-126				
1,3-Dichlorobenzene	ND	5.0	"				84-124				
1,3-Dichloropropane	ND	5.0	"				83-123				
1,4-Dichlorobenzene	ND	5.0	"				84-124				
1,4-Dioxane	ND	100	"				10-228				
2,2-Dichloropropane	ND	5.0	"				67-136				
2-Butanone	ND	5.0	"				58-147				
2-Chloroethylvinyl ether	ND	20	"				10-166				
2-Chlorotoluene	ND	5.0	"				78-127				
2-Hexanone	ND	5.0	"				70-139				
4-Chlorotoluene	ND	5.0	"				79-125				
4-Methyl-2-pentanone	ND	5.0	"				72-132				
Acetone	ND	10	"				36-155				
Acrolein	ND	10	"				10-238				
Acrylonitrile	ND	5.0	"				66-141				
Benzene	ND	5.0	"				77-127				
Bromobenzene	ND	5.0	"				77-129				
Bromochloromethane	ND	5.0	"				74-129				
Bromodichloromethane	ND	5.0	"				81-124				
Bromoform	ND	5.0	"				80-136				
Bromomethane	ND	5.0	"				32-177				
Carbon disulfide	ND	5.0	"				10-136				
Carbon tetrachloride	ND	5.0	"				66-143				
Chlorobenzene	ND	5.0	"				86-120				
Chloroethane	ND	5.0	"				51-142				
Chloroform	ND	5.0	"				76-131				
Chloromethane	ND	5.0	"				49-132				
cis-1,2-Dichloroethylene	ND	5.0	"				74-132				
cis-1,3-Dichloropropylene	ND	5.0	"				81-129				
Dibromochloromethane	ND	5.0	"				10-200				
Dibromomethane	ND	5.0	"				83-124				
Dichlorodifluoromethane	ND	5.0	"				28-158				
Ethyl Benzene	ND	5.0	"				84-125				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21326 - EPA 5035A

LCS (BL21326-BS2)

Prepared & Analyzed: 12/23/2022

Ethyl Ether	920	50	ug/kg wet				70-130				
Ethyl tert-butyl ether (ETBE)	ND	8.0	"				70-130				
Hexachlorobutadiene	ND	5.0	"				83-133				
Iodomethane	ND	5.0	"				70-130				
Isopropylbenzene	ND	5.0	"				81-127				
Methyl Methacrylate	ND	5.0	"				79-125				
Methyl tert-butyl ether (MTBE)	ND	5.0	"				74-131				
Methylene chloride	ND	10	"				57-141				
Naphthalene	ND	10	"				86-141				
n-Butylbenzene	ND	5.0	"				80-130				
n-Propylbenzene	ND	5.0	"				74-136				
o-Xylene	ND	5.0	"				83-123				
p- & m- Xylenes	ND	10	"				82-128				
p-Diethylbenzene	ND	5.0	"				70-144				
p-Ethyltoluene	ND	5.0	"				84-123				
p-Isopropyltoluene	ND	5.0	"				85-125				
sec-Butylbenzene	ND	5.0	"				83-125				
Styrene	ND	5.0	"				86-126				
tert-Amyl methyl ether (TAME)	ND	8.0	"				70-130				
tert-Butylbenzene	ND	5.0	"				80-127				
Tetrachloroethylene	ND	5.0	"				80-129				
Tetrahydrofuran	ND	10	"				64-137				
Toluene	ND	5.0	"				85-121				
trans-1,2-Dichloroethylene	ND	5.0	"				72-132				
trans-1,3-Dichloropropylene	ND	5.0	"				78-132				
Trichloroethylene	ND	5.0	"				84-123				
Trichlorofluoromethane	ND	5.0	"				62-140				
Vinyl acetate	ND	5.0	"				67-136				
Vinyl Chloride	ND	5.0	"				52-130				
Allyl chloride	ND	5.0	"				70-130				
n-butyl acetate	43		ug/L	50.0		86.0	70-130				
Chlorodifluoromethane (Freon 22)	840		"	50.0		NR	70-130	High Bias			
cis-decahydronaphthalene	52		"	50.0		105	70-130				
trans-decahydronaphthalene	57		"	50.0		113	70-130				
n-Decane	73	5.0	ug/kg wet				70-130				
Ethyl Methacrylate	ND	5.0	"				70-130				
Hexachloroethane	ND	5.0	"				70-130				
n-Hexane	45		ug/L	50.0		90.5	70-130				
Limonene	60		"	50.0		120	70-130				
Nitrobenzene	ND	5.0	ug/kg wet				70-130				
2-Nitropropane	ND	5.0	"				70-130				
n-Nonane	59		ug/L	50.0		118	70-130				
n-octane	50		"	50.0		101	70-130				
n-undecane	74		"	50.0		147	70-130	High Bias			
Surrogate: SURR: 1,2-Dichloroethane-d4	46.2		"	50.0		92.5	77-125				
Surrogate: SURR: Toluene-d8	51.1		"	50.0		102	85-120				
Surrogate: SURR: p-Bromofluorobenzene	58.7		"	50.0		117	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21326 - EPA 5035A											
LCS Dup (BL21326-BSD1)						Prepared & Analyzed: 12/23/2022					
1,1,1,2-Tetrachloroethane	52		ug/L	50.0		105	75-129		11.7	30	
1,1,1-Trichloroethane	50		"	50.0		99.7	71-137		6.98	30	
1,1,2,2-Tetrachloroethane	52		"	50.0		105	79-129		12.8	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	43		"	50.0		85.2	58-146		5.37	30	
1,1,2-Trichloroethane	50		"	50.0		100	83-123		13.2	30	
1,1-Dichloroethane	45		"	50.0		90.7	75-130		6.96	30	
1,1-Dichloroethylene	45		"	50.0		89.4	64-137		9.76	30	
1,1-Dichloropropylene	47		"	50.0		93.3	77-127		6.69	30	
1,2,3-Trichlorobenzene	45		"	50.0		90.7	81-140		12.6	30	
1,2,3-Trichloropropane	50		"	50.0		99.3	81-126		12.8	30	
1,2,4,5-Tetramethylbenzene	52		"	50.0		104	63-156		10.2	30	
1,2,4-Trichlorobenzene	46		"	50.0		91.6	80-141		9.82	30	
1,2,4-Trimethylbenzene	48		"	50.0		97.0	84-125		8.76	30	
1,2-Dibromo-3-chloropropane	55		"	50.0		110	74-142		10.8	30	
1,2-Dibromoethane	51		"	50.0		102	86-123		12.6	30	
1,2-Dichlorobenzene	51		"	50.0		101	85-122		11.0	30	
1,2-Dichloroethane	53		"	50.0		106	71-133		13.7	30	
1,2-Dichloropropane	51		"	50.0		101	81-122		9.41	30	
1,3,5-Trimethylbenzene	50		"	50.0		99.9	82-126		9.07	30	
1,3-Dichlorobenzene	47		"	50.0		94.2	84-124		8.63	30	
1,3-Dichloropropane	50		"	50.0		101	83-123		10.4	30	
1,4-Dichlorobenzene	48		"	50.0		95.5	84-124		11.7	30	
1,4-Dioxane	1200		"	1050		119	10-228		11.7	30	
2,2-Dichloropropane	48		"	50.0		95.7	67-136		10.5	30	
2-Butanone	44		"	50.0		88.7	58-147		9.52	30	
2-Chloroethylvinyl ether	97		"	50.0		195	10-166	High Bias	12.9	30	
2-Chlorotoluene	48		"	50.0		96.4	78-127		7.56	30	
2-Hexanone	53		"	50.0		106	70-139		12.7	30	
4-Chlorotoluene	51		"	50.0		103	79-125		8.33	30	
4-Methyl-2-pentanone	41		"	50.0		82.5	72-132		12.3	30	
Acetone	35		"	50.0		70.4	36-155		4.56	30	
Acrolein	43		"	50.0		85.9	10-238		7.17	30	
Acrylonitrile	51		"	50.0		101	66-141		9.39	30	
Benzene	49		"	50.0		98.5	77-127		7.41	30	
Bromobenzene	48		"	50.0		95.2	77-129		9.48	30	
Bromochloromethane	52		"	50.0		103	74-129		9.26	30	
Bromodichloromethane	52		"	50.0		103	81-124		9.78	30	
Bromoform	50		"	50.0		99.9	80-136		14.7	30	
Bromomethane	78		"	50.0		157	32-177		5.32	30	
Carbon disulfide	46		"	50.0		91.9	10-136		7.85	30	
Carbon tetrachloride	51		"	50.0		103	66-143		8.85	30	
Chlorobenzene	52		"	50.0		105	86-120		9.79	30	
Chloroethane	76		"	50.0		153	51-142	High Bias	2.39	30	
Chloroform	50		"	50.0		100	76-131		9.32	30	
Chloromethane	56		"	50.0		111	49-132		1.45	30	
cis-1,2-Dichloroethylene	49		"	50.0		97.3	74-132		11.5	30	
cis-1,3-Dichloropropylene	51		"	50.0		101	81-129		10.5	30	
Dibromochloromethane	48		"	50.0		95.7	10-200		12.3	30	
Dibromomethane	51		"	50.0		102	83-124		9.50	30	
Dichlorodifluoromethane	38		"	50.0		76.0	28-158		2.94	30	
Ethyl Benzene	50		"	50.0		101	84-125		8.95	30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21326 - EPA 5035A											
LCS Dup (BL21326-BSD1)						Prepared & Analyzed: 12/23/2022					
Ethyl Ether	ND	50	ug/kg wet				70-130			30	
Ethyl tert-butyl ether (ETBE)	44		ug/L	50.0		87.0	70-130		14.3	30	
Hexachlorobutadiene	45		"	50.0		90.0	83-133		8.77	30	
Iodomethane	46		"	50.0		91.9	70-130		9.10	30	
Isopropylbenzene	50		"	50.0		99.8	81-127		8.13	30	
Methyl Methacrylate	51		"	50.0		102	79-125		13.3	30	
Methyl tert-butyl ether (MTBE)	46		"	50.0		92.5	74-131		14.5	30	
Methylene chloride	48		"	50.0		96.3	57-141		10.0	30	
Naphthalene	49		"	50.0		98.6	86-141		13.0	30	
n-Butylbenzene	52		"	50.0		105	80-130		9.27	30	
n-Propylbenzene	50		"	50.0		99.8	74-136		6.37	30	
o-Xylene	51		"	50.0		102	83-123		10.3	30	
p- & m- Xylenes	110		"	100		106	82-128		9.30	30	
p-Diethylbenzene	54		"	50.0		108	70-144		10.1	30	
p-Ethyltoluene	54		"	50.0		108	84-123		7.36	30	
p-Isopropyltoluene	50		"	50.0		99.9	85-125		8.01	30	
sec-Butylbenzene	50		"	50.0		100	83-125		8.04	30	
Styrene	52		"	50.0		104	86-126		11.6	30	
tert-Amyl methyl ether (TAME)	46		"	50.0		92.0	70-130		13.5	30	
tert-Butylbenzene	42		"	50.0		83.9	80-127		8.79	30	
Tetrachloroethylene	42		"	50.0		84.3	80-129		6.80	30	
Tetrahydrofuran	54		"	50.0		108	64-137		6.60	30	
Toluene	50		"	50.0		99.7	85-121		7.64	30	
trans-1,2-Dichloroethylene	47		"	50.0		93.4	72-132		8.46	30	
trans-1,3-Dichloropropylene	51		"	50.0		102	78-132		10.3	30	
Trichloroethylene	48		"	50.0		95.6	84-123		7.60	30	
Trichlorofluoromethane	68		"	50.0		135	62-140		2.29	30	
Vinyl acetate	48		"	50.0		95.2	67-136		9.49	30	
Vinyl Chloride	67		"	50.0		134	52-130	High Bias	4.08	30	
Allyl chloride	45		"	50.0		90.3	70-130		1.02	30	
n-butyl acetate	ND	5.0	ug/kg wet				70-130			30	
Chlorodifluoromethane (Freon 22)	ND	5.0	"				70-130			30	
cis-decahydronaphthalene	ND	5.0	"				70-130			30	
trans-decahydronaphthalene	ND	5.0	"				70-130			30	
n-Decane	ND	5.0	"				70-130			30	
Ethyl Methacrylate	51		ug/L	50.0		102	70-130		15.0	30	
Hexachloroethane	ND	5.0	ug/kg wet				70-130			30	
n-Hexane	ND	5.0	"				70-130			30	
Limonene	ND	5.0	"				70-130			30	
Nitrobenzene	73		ug/L	50.0		146	70-130	High Bias	14.4	30	
2-Nitropropane	57	5.0	ug/kg wet				70-130		9.92	30	
n-Nonane	ND	5.0	"				70-130			30	
n-octane	ND	5.0	"				70-130			30	
n-undecane	ND	5.0	"				70-130			30	
Surrogate: SURR: 1,2-Dichloroethane-d4	51.0		ug/L	50.0		102	77-125				
Surrogate: SURR: Toluene-d8	51.0		"	50.0		102	85-120				
Surrogate: SURR: p-Bromofluorobenzene	47.7		"	50.0		95.3	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21326 - EPA 5035A											
LCS Dup (BL21326-BSD2)						Prepared & Analyzed: 12/23/2022					
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet				75-129			30	
1,1,1-Trichloroethane	ND	5.0	"				71-137			30	
1,1,2,2-Tetrachloroethane	ND	5.0	"				79-129			30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"				58-146			30	
1,1,2-Trichloroethane	ND	5.0	"				83-123			30	
1,1-Dichloroethane	ND	5.0	"				75-130			30	
1,1-Dichloroethylene	ND	5.0	"				64-137			30	
1,1-Dichloropropylene	ND	5.0	"				77-127			30	
1,2,3-Trichlorobenzene	ND	5.0	"				81-140			30	
1,2,3-Trichloropropane	ND	5.0	"				81-126			30	
1,2,4,5-Tetramethylbenzene	ND	5.0	"				63-156			30	
1,2,4-Trichlorobenzene	ND	5.0	"				80-141			30	
1,2,4-Trimethylbenzene	ND	5.0	"				84-125			30	
1,2-Dibromo-3-chloropropane	ND	5.0	"				74-142			30	
1,2-Dibromoethane	ND	5.0	"				86-123			30	
1,2-Dichlorobenzene	ND	5.0	"				85-122			30	
1,2-Dichloroethane	ND	5.0	"				71-133			30	
1,2-Dichloropropane	ND	5.0	"				81-122			30	
1,3,5-Trimethylbenzene	ND	5.0	"				82-126			30	
1,3-Dichlorobenzene	ND	5.0	"				84-124			30	
1,3-Dichloropropane	ND	5.0	"				83-123			30	
1,4-Dichlorobenzene	ND	5.0	"				84-124			30	
1,4-Dioxane	ND	100	"				10-228			30	
2,2-Dichloropropane	ND	5.0	"				67-136			30	
2-Butanone	ND	5.0	"				58-147			30	
2-Chloroethylvinyl ether	ND	20	"				10-166			30	
2-Chlorotoluene	ND	5.0	"				78-127			30	
2-Hexanone	ND	5.0	"				70-139			30	
4-Chlorotoluene	ND	5.0	"				79-125			30	
4-Methyl-2-pentanone	ND	5.0	"				72-132			30	
Acetone	ND	10	"				36-155			30	
Acrolein	ND	10	"				10-238			30	
Acrylonitrile	ND	5.0	"				66-141			30	
Benzene	ND	5.0	"				77-127			30	
Bromobenzene	ND	5.0	"				77-129			30	
Bromochloromethane	ND	5.0	"				74-129			30	
Bromodichloromethane	ND	5.0	"				81-124			30	
Bromoform	ND	5.0	"				80-136			30	
Bromomethane	ND	5.0	"				32-177			30	
Carbon disulfide	ND	5.0	"				10-136			30	
Carbon tetrachloride	ND	5.0	"				66-143			30	
Chlorobenzene	ND	5.0	"				86-120			30	
Chloroethane	ND	5.0	"				51-142			30	
Chloroform	ND	5.0	"				76-131			30	
Chloromethane	ND	5.0	"				49-132			30	
cis-1,2-Dichloroethylene	ND	5.0	"				74-132			30	
cis-1,3-Dichloropropylene	ND	5.0	"				81-129			30	
Dibromochloromethane	ND	5.0	"				10-200			30	
Dibromomethane	ND	5.0	"				83-124			30	
Dichlorodifluoromethane	ND	5.0	"				28-158			30	
Ethyl Benzene	ND	5.0	"				84-125			30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21326 - EPA 5035A											
LCS Dup (BL21326-BSD2)						Prepared & Analyzed: 12/23/2022					
Ethyl Ether	930	50	ug/kg wet				70-130		1.06	30	
Ethyl tert-butyl ether (ETBE)	ND	8.0	"				70-130			30	
Hexachlorobutadiene	ND	5.0	"				83-133			30	
Iodomethane	ND	5.0	"				70-130			30	
Isopropylbenzene	ND	5.0	"				81-127			30	
Methyl Methacrylate	ND	5.0	"				79-125			30	
Methyl tert-butyl ether (MTBE)	ND	5.0	"				74-131			30	
Methylene chloride	ND	10	"				57-141			30	
Naphthalene	ND	10	"				86-141			30	
n-Butylbenzene	ND	5.0	"				80-130			30	
n-Propylbenzene	ND	5.0	"				74-136			30	
o-Xylene	ND	5.0	"				83-123			30	
p- & m- Xylenes	ND	10	"				82-128			30	
p-Diethylbenzene	ND	5.0	"				70-144			30	
p-Ethyltoluene	ND	5.0	"				84-123			30	
p-Isopropyltoluene	ND	5.0	"				85-125			30	
sec-Butylbenzene	ND	5.0	"				83-125			30	
Styrene	ND	5.0	"				86-126			30	
tert-Amyl methyl ether (TAME)	ND	8.0	"				70-130			30	
tert-Butylbenzene	ND	5.0	"				80-127			30	
Tetrachloroethylene	ND	5.0	"				80-129			30	
Tetrahydrofuran	ND	10	"				64-137			30	
Toluene	ND	5.0	"				85-121			30	
trans-1,2-Dichloroethylene	ND	5.0	"				72-132			30	
trans-1,3-Dichloropropylene	ND	5.0	"				78-132			30	
Trichloroethylene	ND	5.0	"				84-123			30	
Trichlorofluoromethane	ND	5.0	"				62-140			30	
Vinyl acetate	ND	5.0	"				67-136			30	
Vinyl Chloride	ND	5.0	"				52-130			30	
Allyl chloride	ND	5.0	"				70-130			30	
n-butyl acetate	45		ug/L	50.0		91.0	70-130		5.63	30	
Chlorodifluoromethane (Freon 22)	910		"	50.0		NR	70-130	High Bias	8.12	30	
cis-decahydronaphthalene	53		"	50.0		106	70-130		0.798	30	
trans-decahydronaphthalene	58		"	50.0		115	70-130		1.50	30	
n-Decane	74	5.0	ug/kg wet				70-130		1.80	30	
Ethyl Methacrylate	ND	5.0	"				70-130			30	
Hexachloroethane	ND	5.0	"				70-130			30	
n-Hexane	46		ug/L	50.0		92.9	70-130		2.68	30	
Limonene	61		"	50.0		123	70-130		2.03	30	
Nitrobenzene	ND	5.0	ug/kg wet				70-130			30	
2-Nitropropane	ND	5.0	"				70-130			30	
n-Nonane	61		ug/L	50.0		121	70-130		3.06	30	
n-octane	52		"	50.0		104	70-130		2.76	30	
n-undecane	75		"	50.0		150	70-130	High Bias	1.63	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	47.0		"	50.0		94.1	77-125				
Surrogate: SURR: Toluene-d8	50.5		"	50.0		101	85-120				
Surrogate: SURR: p-Bromofluorobenzene	57.4		"	50.0		115	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21333 - EPA 5035A

Blank (BL21333-BLK1)

Prepared & Analyzed: 12/29/2022

1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet
1,1,1-Trichloroethane	ND	5.0	"
1,1,2,2-Tetrachloroethane	ND	5.0	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"
1,1,2-Trichloroethane	ND	5.0	"
1,1-Dichloroethane	ND	5.0	"
1,1-Dichloroethylene	ND	5.0	"
1,1-Dichloropropylene	ND	5.0	"
1,2,3-Trichlorobenzene	ND	5.0	"
1,2,3-Trichloropropane	ND	5.0	"
1,2,4,5-Tetramethylbenzene	ND	5.0	"
1,2,4-Trichlorobenzene	ND	5.0	"
1,2,4-Trimethylbenzene	ND	5.0	"
1,2-Dibromo-3-chloropropane	ND	5.0	"
1,2-Dibromoethane	ND	5.0	"
1,2-Dichlorobenzene	ND	5.0	"
1,2-Dichloroethane	ND	5.0	"
1,2-Dichloropropane	ND	5.0	"
1,3,5-Trimethylbenzene	ND	5.0	"
1,3-Dichlorobenzene	ND	5.0	"
1,3-Dichloropropane	ND	5.0	"
1,4-Dichlorobenzene	ND	5.0	"
1,4-Dioxane	ND	100	"
2,2-Dichloropropane	ND	5.0	"
2-Butanone	ND	5.0	"
2-Chloroethylvinyl ether	ND	20	"
2-Chlorotoluene	ND	5.0	"
2-Hexanone	ND	5.0	"
4-Chlorotoluene	ND	5.0	"
4-Methyl-2-pentanone	ND	5.0	"
Acetone	ND	10	"
Acrolein	ND	10	"
Acrylonitrile	ND	5.0	"
Benzene	ND	5.0	"
Bromobenzene	ND	5.0	"
Bromochloromethane	ND	5.0	"
Bromodichloromethane	ND	5.0	"
Bromoform	ND	5.0	"
Bromomethane	ND	5.0	"
Carbon disulfide	ND	5.0	"
Carbon tetrachloride	ND	5.0	"
Chlorobenzene	ND	5.0	"
Chloroethane	ND	5.0	"
Chloroform	ND	5.0	"
Chloromethane	ND	5.0	"
cis-1,2-Dichloroethylene	ND	5.0	"
cis-1,3-Dichloropropylene	ND	5.0	"
Dibromochloromethane	ND	5.0	"
Dibromomethane	ND	5.0	"
Dichlorodifluoromethane	ND	5.0	"
Ethyl Benzene	ND	5.0	"



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21333 - EPA 5035A

Blank (BL21333-BLK1)

Prepared & Analyzed: 12/29/2022

Ethyl Ether	ND	50	ug/kg wet								
Ethyl tert-butyl ether (ETBE)	ND	8.0	"								
Hexachlorobutadiene	ND	5.0	"								
Iodomethane	ND	5.0	"								
Isopropylbenzene	ND	5.0	"								
Methyl Methacrylate	ND	5.0	"								
Methyl tert-butyl ether (MTBE)	ND	5.0	"								
Methylene chloride	ND	10	"								
Naphthalene	ND	10	"								
n-Butylbenzene	ND	5.0	"								
n-Propylbenzene	ND	5.0	"								
o-Xylene	ND	5.0	"								
p- & m- Xylenes	ND	10	"								
p-Diethylbenzene	ND	5.0	"								
p-Ethyltoluene	ND	5.0	"								
p-Isopropyltoluene	ND	5.0	"								
sec-Butylbenzene	ND	5.0	"								
Styrene	ND	5.0	"								
tert-Amyl methyl ether (TAME)	ND	8.0	"								
tert-Butylbenzene	ND	5.0	"								
Tetrachloroethylene	ND	5.0	"								
Tetrahydrofuran	ND	10	"								
Toluene	ND	5.0	"								
trans-1,2-Dichloroethylene	ND	5.0	"								
trans-1,3-Dichloropropylene	ND	5.0	"								
Trichloroethylene	ND	5.0	"								
Trichlorofluoromethane	ND	5.0	"								
Vinyl acetate	ND	5.0	"								
Vinyl Chloride	ND	5.0	"								
Xylenes, Total	ND	15	"								
Allyl chloride	ND	5.0	"								
n-butyl acetate	ND	5.0	"								
Chlorodifluoromethane (Freon 22)	ND	5.0	"								
cis-decahydronaphthalene	ND	5.0	"								
trans-decahydronaphthalene	ND	5.0	"								
n-Decane	ND	5.0	"								
Ethyl Methacrylate	ND	5.0	"								
Hexachloroethane	ND	5.0	"								
n-Hexane	ND	5.0	"								
Limonene	ND	5.0	"								
Nitrobenzene	ND	5.0	"								
2-Nitropropane	ND	5.0	"								
n-Nonane	ND	5.0	"								
n-octane	ND	5.0	"								
n-undecane	ND	5.0	"								
Methyl Isothiocyanate (TIC)	ND	50	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	54.2		ug/L	50.0		108	77-125				
Surrogate: SURR: Toluene-d8	47.8		"	50.0		95.7	85-120				
Surrogate: SURR: p-Bromofluorobenzene	54.5		"	50.0		109	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS (BL21333-BS1)						Prepared & Analyzed: 12/29/2022					
1,1,1,2-Tetrachloroethane	52		ug/L	50.0		104	75-129				
1,1,1-Trichloroethane	61		"	50.0		121	71-137				
1,1,2,2-Tetrachloroethane	62		"	50.0		123	79-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	51		"	50.0		103	58-146				
1,1,2-Trichloroethane	54		"	50.0		109	83-123				
1,1-Dichloroethane	53		"	50.0		106	75-130				
1,1-Dichloroethylene	51		"	50.0		103	64-137				
1,1-Dichloropropylene	57		"	50.0		113	77-127				
1,2,3-Trichlorobenzene	52		"	50.0		104	81-140				
1,2,3-Trichloropropane	57		"	50.0		114	81-126				
1,2,4,5-Tetramethylbenzene	61		"	50.0		123	63-156				
1,2,4-Trichlorobenzene	55		"	50.0		109	80-141				
1,2,4-Trimethylbenzene	54		"	50.0		109	84-125				
1,2-Dibromo-3-chloropropane	67		"	50.0		133	74-142				
1,2-Dibromoethane	57		"	50.0		115	86-123				
1,2-Dichlorobenzene	49		"	50.0		98.4	85-122				
1,2-Dichloroethane	57		"	50.0		115	71-133				
1,2-Dichloropropane	54		"	50.0		109	81-122				
1,3,5-Trimethylbenzene	52		"	50.0		105	82-126				
1,3-Dichlorobenzene	50		"	50.0		100	84-124				
1,3-Dichloropropane	56		"	50.0		112	83-123				
1,4-Dichlorobenzene	50		"	50.0		101	84-124				
1,4-Dioxane	1200		"	1050		116	10-228				
2,2-Dichloropropane	70		"	50.0		139	67-136	High Bias			
2-Butanone	62		"	50.0		125	58-147				
2-Chloroethylvinyl ether	64		"	50.0		129	10-166				
2-Chlorotoluene	56		"	50.0		112	78-127				
2-Hexanone	62		"	50.0		124	70-139				
4-Chlorotoluene	52		"	50.0		104	79-125				
4-Methyl-2-pentanone	60		"	50.0		120	72-132				
Acetone	54		"	50.0		108	36-155				
Acrolein	40		"	50.0		79.9	10-238				
Acrylonitrile	48		"	50.0		96.0	66-141				
Benzene	56		"	50.0		111	77-127				
Bromobenzene	58		"	50.0		115	77-129				
Bromochloromethane	61		"	50.0		122	74-129				
Bromodichloromethane	57		"	50.0		114	81-124				
Bromoform	46		"	50.0		91.2	80-136				
Bromomethane	44		"	50.0		87.3	32-177				
Carbon disulfide	54		"	50.0		109	10-136				
Carbon tetrachloride	59		"	50.0		117	66-143				
Chlorobenzene	54		"	50.0		108	86-120				
Chloroethane	52		"	50.0		104	51-142				
Chloroform	57		"	50.0		114	76-131				
Chloromethane	47		"	50.0		93.3	49-132				
cis-1,2-Dichloroethylene	53		"	50.0		105	74-132				
cis-1,3-Dichloropropylene	62		"	50.0		123	81-129				
Dibromochloromethane	55		"	50.0		110	10-200				
Dibromomethane	55		"	50.0		110	83-124				
Dichlorodifluoromethane	48		"	50.0		95.5	28-158				
Ethyl Benzene	52		"	50.0		105	84-125				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS (BL21333-BS1)						Prepared & Analyzed: 12/29/2022					
Ethyl Ether	ND	50	ug/kg wet				70-130				
Ethyl tert-butyl ether (ETBE)	63		ug/L	50.0		125	70-130				
Hexachlorobutadiene	49		"	50.0		98.9	83-133				
Iodomethane	65		"	50.0		131	70-130	High Bias			
Isopropylbenzene	57		"	50.0		113	81-127				
Methyl Methacrylate	56		"	50.0		113	79-125				
Methyl tert-butyl ether (MTBE)	61		"	50.0		122	74-131				
Methylene chloride	52		"	50.0		105	57-141				
Naphthalene	58		"	50.0		116	86-141				
n-Butylbenzene	55		"	50.0		111	80-130				
n-Propylbenzene	57		"	50.0		114	74-136				
o-Xylene	54		"	50.0		108	83-123				
p- & m- Xylenes	100		"	100		103	82-128				
p-Diethylbenzene	58		"	50.0		116	70-144				
p-Ethyltoluene	59		"	50.0		118	84-123				
p-Isopropyltoluene	52		"	50.0		105	85-125				
sec-Butylbenzene	56		"	50.0		111	83-125				
Styrene	54		"	50.0		109	86-126				
tert-Amyl methyl ether (TAME)	75		"	50.0		150	70-130	High Bias			
tert-Butylbenzene	54		"	50.0		109	80-127				
Tetrachloroethylene	40		"	50.0		80.9	80-129				
Tetrahydrofuran	59		"	50.0		117	64-137				
Toluene	52		"	50.0		103	85-121				
trans-1,2-Dichloroethylene	55		"	50.0		111	72-132				
trans-1,3-Dichloropropylene	66		"	50.0		131	78-132				
Trichloroethylene	54		"	50.0		108	84-123				
Trichlorofluoromethane	53		"	50.0		106	62-140				
Vinyl acetate	79		"	50.0		157	67-136	High Bias			
Vinyl Chloride	47		"	50.0		95.0	52-130				
Allyl chloride	65		"	50.0		130	70-130				
n-butyl acetate	ND	5.0	ug/kg wet				70-130				
Chlorodifluoromethane (Freon 22)	ND	5.0	"				70-130				
cis-decahydronaphthalene	ND	5.0	"				70-130				
trans-decahydronaphthalene	ND	5.0	"				70-130				
n-Decane	ND	5.0	"				70-130				
Ethyl Methacrylate	57		ug/L	50.0		115	70-130				
Hexachloroethane	ND	5.0	ug/kg wet				70-130				
n-Hexane	ND	5.0	"				70-130				
Limonene	ND	5.0	"				70-130				
Nitrobenzene	50		ug/L	50.0		100	70-130				
2-Nitropropane	72	5.0	ug/kg wet				70-130				
n-Nonane	ND	5.0	"				70-130				
n-octane	ND	5.0	"				70-130				
n-undecane	ND	5.0	"				70-130				
Surrogate: SURR: 1,2-Dichloroethane-d4	53.3		ug/L	50.0		107	77-125				
Surrogate: SURR: Toluene-d8	48.7		"	50.0		97.4	85-120				
Surrogate: SURR: p-Bromofluorobenzene	58.4		"	50.0		117	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21333 - EPA 5035A

LCS (BL21333-BS2)

Prepared & Analyzed: 12/29/2022

1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet				75-129			
1,1,1-Trichloroethane	ND	5.0	"				71-137			
1,1,2,2-Tetrachloroethane	ND	5.0	"				79-129			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"				58-146			
1,1,2-Trichloroethane	ND	5.0	"				83-123			
1,1-Dichloroethane	ND	5.0	"				75-130			
1,1-Dichloroethylene	ND	5.0	"				64-137			
1,1-Dichloropropylene	ND	5.0	"				77-127			
1,2,3-Trichlorobenzene	ND	5.0	"				81-140			
1,2,3-Trichloropropane	ND	5.0	"				81-126			
1,2,4,5-Tetramethylbenzene	ND	5.0	"				63-156			
1,2,4-Trichlorobenzene	ND	5.0	"				80-141			
1,2,4-Trimethylbenzene	ND	5.0	"				84-125			
1,2-Dibromo-3-chloropropane	ND	5.0	"				74-142			
1,2-Dibromoethane	ND	5.0	"				86-123			
1,2-Dichlorobenzene	ND	5.0	"				85-122			
1,2-Dichloroethane	ND	5.0	"				71-133			
1,2-Dichloropropane	ND	5.0	"				81-122			
1,3,5-Trimethylbenzene	ND	5.0	"				82-126			
1,3-Dichlorobenzene	ND	5.0	"				84-124			
1,3-Dichloropropane	ND	5.0	"				83-123			
1,4-Dichlorobenzene	ND	5.0	"				84-124			
1,4-Dioxane	ND	100	"				10-228			
2,2-Dichloropropane	ND	5.0	"				67-136			
2-Butanone	ND	5.0	"				58-147			
2-Chloroethylvinyl ether	ND	20	"				10-166			
2-Chlorotoluene	ND	5.0	"				78-127			
2-Hexanone	ND	5.0	"				70-139			
4-Chlorotoluene	ND	5.0	"				79-125			
4-Methyl-2-pentanone	ND	5.0	"				72-132			
Acetone	ND	10	"				36-155			
Acrolein	ND	10	"				10-238			
Acrylonitrile	ND	5.0	"				66-141			
Benzene	ND	5.0	"				77-127			
Bromobenzene	ND	5.0	"				77-129			
Bromochloromethane	ND	5.0	"				74-129			
Bromodichloromethane	ND	5.0	"				81-124			
Bromoform	ND	5.0	"				80-136			
Bromomethane	ND	5.0	"				32-177			
Carbon disulfide	ND	5.0	"				10-136			
Carbon tetrachloride	ND	5.0	"				66-143			
Chlorobenzene	ND	5.0	"				86-120			
Chloroethane	ND	5.0	"				51-142			
Chloroform	ND	5.0	"				76-131			
Chloromethane	ND	5.0	"				49-132			
cis-1,2-Dichloroethylene	ND	5.0	"				74-132			
cis-1,3-Dichloropropylene	ND	5.0	"				81-129			
Dibromochloromethane	ND	5.0	"				10-200			
Dibromomethane	ND	5.0	"				83-124			
Dichlorodifluoromethane	ND	5.0	"				28-158			
Ethyl Benzene	ND	5.0	"				84-125			



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21333 - EPA 5035A

LCS (BL21333-BS2)

Prepared & Analyzed: 12/29/2022

Ethyl Ether	570	50	ug/kg wet				70-130				
Ethyl tert-butyl ether (ETBE)	ND	8.0	"				70-130				
Hexachlorobutadiene	ND	5.0	"				83-133				
Iodomethane	ND	5.0	"				70-130				
Isopropylbenzene	ND	5.0	"				81-127				
Methyl Methacrylate	ND	5.0	"				79-125				
Methyl tert-butyl ether (MTBE)	ND	5.0	"				74-131				
Methylene chloride	ND	10	"				57-141				
Naphthalene	ND	10	"				86-141				
n-Butylbenzene	ND	5.0	"				80-130				
n-Propylbenzene	ND	5.0	"				74-136				
o-Xylene	ND	5.0	"				83-123				
p- & m- Xylenes	ND	10	"				82-128				
p-Diethylbenzene	ND	5.0	"				70-144				
p-Ethyltoluene	ND	5.0	"				84-123				
p-Isopropyltoluene	ND	5.0	"				85-125				
sec-Butylbenzene	ND	5.0	"				83-125				
Styrene	ND	5.0	"				86-126				
tert-Amyl methyl ether (TAME)	ND	8.0	"				70-130				
tert-Butylbenzene	ND	5.0	"				80-127				
Tetrachloroethylene	ND	5.0	"				80-129				
Tetrahydrofuran	ND	10	"				64-137				
Toluene	ND	5.0	"				85-121				
trans-1,2-Dichloroethylene	ND	5.0	"				72-132				
trans-1,3-Dichloropropylene	ND	5.0	"				78-132				
Trichloroethylene	ND	5.0	"				84-123				
Trichlorofluoromethane	ND	5.0	"				62-140				
Vinyl acetate	ND	5.0	"				67-136				
Vinyl Chloride	ND	5.0	"				52-130				
Allyl chloride	ND	5.0	"				70-130				
n-butyl acetate	65		ug/L	50.0		131	70-130	High Bias			
Chlorodifluoromethane (Freon 22)	560		"	50.0		NR	70-130	High Bias			
cis-decahydronaphthalene	49		"	50.0		98.5	70-130				
trans-decahydronaphthalene	48		"	50.0		96.8	70-130				
n-Decane	68	5.0	ug/kg wet				70-130				
Ethyl Methacrylate	ND	5.0	"				70-130				
Hexachloroethane	ND	5.0	"				70-130				
n-Hexane	66		ug/L	50.0		133	70-130	High Bias			
Limonene	51		"	50.0		102	70-130				
Nitrobenzene	ND	5.0	ug/kg wet				70-130				
2-Nitropropane	ND	5.0	"				70-130				
n-Nonane	80		ug/L	50.0		160	70-130	High Bias			
n-octane	78		"	50.0		155	70-130	High Bias			
n-undecane	68		"	50.0		136	70-130	High Bias			
Surrogate: SURR: 1,2-Dichloroethane-d4	65.1		"	50.0		130	77-125				
Surrogate: SURR: Toluene-d8	53.0		"	50.0		106	85-120				
Surrogate: SURR: p-Bromofluorobenzene	57.0		"	50.0		114	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS Dup (BL21333-BSD1)						Prepared & Analyzed: 12/29/2022					
1,1,1,2-Tetrachloroethane	50		ug/L	50.0		99.1	75-129		4.54	30	
1,1,1-Trichloroethane	60		"	50.0		119	71-137		1.50	30	
1,1,2,2-Tetrachloroethane	59		"	50.0		119	79-129		3.71	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	51		"	50.0		102	58-146		0.940	30	
1,1,2-Trichloroethane	53		"	50.0		106	83-123		2.82	30	
1,1-Dichloroethane	53		"	50.0		105	75-130		0.341	30	
1,1-Dichloroethylene	50		"	50.0		99.1	64-137		3.82	30	
1,1-Dichloropropylene	56		"	50.0		112	77-127		0.924	30	
1,2,3-Trichlorobenzene	50		"	50.0		101	81-140		3.32	30	
1,2,3-Trichloropropane	55		"	50.0		110	81-126		3.11	30	
1,2,4,5-Tetramethylbenzene	60		"	50.0		121	63-156		1.57	30	
1,2,4-Trichlorobenzene	53		"	50.0		106	80-141		2.86	30	
1,2,4-Trimethylbenzene	53		"	50.0		106	84-125		2.42	30	
1,2-Dibromo-3-chloropropane	62		"	50.0		123	74-142		8.04	30	
1,2-Dibromoethane	57		"	50.0		113	86-123		1.35	30	
1,2-Dichlorobenzene	48		"	50.0		95.8	85-122		2.70	30	
1,2-Dichloroethane	58		"	50.0		115	71-133		0.295	30	
1,2-Dichloropropane	54		"	50.0		108	81-122		0.425	30	
1,3,5-Trimethylbenzene	51		"	50.0		103	82-126		2.23	30	
1,3-Dichlorobenzene	49		"	50.0		97.4	84-124		2.67	30	
1,3-Dichloropropane	55		"	50.0		111	83-123		1.11	30	
1,4-Dichlorobenzene	49		"	50.0		97.9	84-124		2.70	30	
1,4-Dioxane	1200		"	1050		116	10-228		0.220	30	
2,2-Dichloropropane	67		"	50.0		134	67-136		3.48	30	
2-Butanone	62		"	50.0		124	58-147		0.482	30	
2-Chloroethylvinyl ether	63		"	50.0		127	10-166		1.72	30	
2-Chlorotoluene	55		"	50.0		110	78-127		1.67	30	
2-Hexanone	58		"	50.0		115	70-139		7.30	30	
4-Chlorotoluene	51		"	50.0		102	79-125		1.15	30	
4-Methyl-2-pentanone	56		"	50.0		111	72-132		7.62	30	
Acetone	54		"	50.0		107	36-155		0.502	30	
Acrolein	39		"	50.0		77.8	10-238		2.74	30	
Acrylonitrile	48		"	50.0		95.5	66-141		0.522	30	
Benzene	55		"	50.0		111	77-127		0.216	30	
Bromobenzene	56		"	50.0		113	77-129		2.23	30	
Bromochloromethane	60		"	50.0		120	74-129		1.98	30	
Bromodichloromethane	56		"	50.0		112	81-124		1.88	30	
Bromoform	45		"	50.0		90.0	80-136		1.32	30	
Bromomethane	44		"	50.0		87.7	32-177		0.389	30	
Carbon disulfide	58		"	50.0		116	10-136		7.00	30	
Carbon tetrachloride	57		"	50.0		114	66-143		2.92	30	
Chlorobenzene	53		"	50.0		105	86-120		2.70	30	
Chloroethane	50		"	50.0		100	51-142		4.06	30	
Chloroform	56		"	50.0		112	76-131		1.82	30	
Chloromethane	48		"	50.0		96.5	49-132		3.44	30	
cis-1,2-Dichloroethylene	58		"	50.0		116	74-132		9.74	30	
cis-1,3-Dichloropropylene	60		"	50.0		120	81-129		2.80	30	
Dibromochloromethane	53		"	50.0		107	10-200		2.70	30	
Dibromomethane	54		"	50.0		109	83-124		0.659	30	
Dichlorodifluoromethane	47		"	50.0		93.2	28-158		2.44	30	
Ethyl Benzene	52		"	50.0		103	84-125		1.59	30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS Dup (BL21333-BSD1)						Prepared & Analyzed: 12/29/2022					
Ethyl Ether	ND	50	ug/kg wet				70-130			30	
Ethyl tert-butyl ether (ETBE)	62		ug/L	50.0		123	70-130		1.50	30	
Hexachlorobutadiene	48		"	50.0		96.1	83-133		2.89	30	
Iodomethane	68		"	50.0		136	70-130	High Bias	4.11	30	
Isopropylbenzene	55		"	50.0		111	81-127		2.09	30	
Methyl Methacrylate	54		"	50.0		109	79-125		3.40	30	
Methyl tert-butyl ether (MTBE)	61		"	50.0		122	74-131		0.246	30	
Methylene chloride	53		"	50.0		105	57-141		0.342	30	
Naphthalene	56		"	50.0		111	86-141		3.72	30	
n-Butylbenzene	54		"	50.0		108	80-130		2.32	30	
n-Propylbenzene	56		"	50.0		112	74-136		1.63	30	
o-Xylene	53		"	50.0		106	83-123		2.04	30	
p- & m- Xylenes	100		"	100		101	82-128		1.93	30	
p-Diethylbenzene	58		"	50.0		116	70-144		0.0860	30	
p-Ethyltoluene	57		"	50.0		115	84-123		2.65	30	
p-Isopropyltoluene	51		"	50.0		102	85-125		2.43	30	
sec-Butylbenzene	54		"	50.0		108	83-125		2.40	30	
Styrene	53		"	50.0		106	86-126		2.25	30	
tert-Amyl methyl ether (TAME)	74		"	50.0		147	70-130	High Bias	2.13	30	
tert-Butylbenzene	53		"	50.0		106	80-127		2.74	30	
Tetrachloroethylene	40		"	50.0		80.0	80-129		1.14	30	
Tetrahydrofuran	57		"	50.0		114	64-137		2.94	30	
Toluene	51		"	50.0		101	85-121		1.58	30	
trans-1,2-Dichloroethylene	55		"	50.0		110	72-132		0.199	30	
trans-1,3-Dichloropropylene	63		"	50.0		125	78-132		4.62	30	
Trichloroethylene	53		"	50.0		105	84-123		2.68	30	
Trichlorofluoromethane	54		"	50.0		108	62-140		1.62	30	
Vinyl acetate	71		"	50.0		143	67-136	High Bias	9.75	30	
Vinyl Chloride	48		"	50.0		95.2	52-130		0.273	30	
Allyl chloride	63		"	50.0		125	70-130		3.88	30	
n-butyl acetate	ND	5.0	ug/kg wet				70-130			30	
Chlorodifluoromethane (Freon 22)	ND	5.0	"				70-130			30	
cis-decahydronaphthalene	ND	5.0	"				70-130			30	
trans-decahydronaphthalene	ND	5.0	"				70-130			30	
n-Decane	ND	5.0	"				70-130			30	
Ethyl Methacrylate	58		ug/L	50.0		115	70-130		0.521	30	
Hexachloroethane	ND	5.0	ug/kg wet				70-130			30	
n-Hexane	ND	5.0	"				70-130			30	
Limonene	ND	5.0	"				70-130			30	
Nitrobenzene	50		ug/L	50.0		99.4	70-130		0.961	30	
2-Nitropropane	61	5.0	ug/kg wet				70-130		16.0	30	
n-Nonane	ND	5.0	"				70-130			30	
n-octane	ND	5.0	"				70-130			30	
n-undecane	ND	5.0	"				70-130			30	
Surrogate: SURR: 1,2-Dichloroethane-d4	54.1		ug/L	50.0		108	77-125				
Surrogate: SURR: Toluene-d8	48.6		"	50.0		97.1	85-120				
Surrogate: SURR: p-Bromofluorobenzene	58.1		"	50.0		116	76-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	Limit	Flag
Batch BL21333 - EPA 5035A											
LCS Dup (BL21333-BSD2)						Prepared & Analyzed: 12/29/2022					
1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg wet				75-129			30	
1,1,1-Trichloroethane	ND	5.0	"				71-137			30	
1,1,2,2-Tetrachloroethane	ND	5.0	"				79-129			30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	5.0	"				58-146			30	
1,1,2-Trichloroethane	ND	5.0	"				83-123			30	
1,1-Dichloroethane	ND	5.0	"				75-130			30	
1,1-Dichloroethylene	ND	5.0	"				64-137			30	
1,1-Dichloropropylene	ND	5.0	"				77-127			30	
1,2,3-Trichlorobenzene	ND	5.0	"				81-140			30	
1,2,3-Trichloropropane	ND	5.0	"				81-126			30	
1,2,4,5-Tetramethylbenzene	ND	5.0	"				63-156			30	
1,2,4-Trichlorobenzene	ND	5.0	"				80-141			30	
1,2,4-Trimethylbenzene	ND	5.0	"				84-125			30	
1,2-Dibromo-3-chloropropane	ND	5.0	"				74-142			30	
1,2-Dibromoethane	ND	5.0	"				86-123			30	
1,2-Dichlorobenzene	ND	5.0	"				85-122			30	
1,2-Dichloroethane	ND	5.0	"				71-133			30	
1,2-Dichloropropane	ND	5.0	"				81-122			30	
1,3,5-Trimethylbenzene	ND	5.0	"				82-126			30	
1,3-Dichlorobenzene	ND	5.0	"				84-124			30	
1,3-Dichloropropane	ND	5.0	"				83-123			30	
1,4-Dichlorobenzene	ND	5.0	"				84-124			30	
1,4-Dioxane	ND	100	"				10-228			30	
2,2-Dichloropropane	ND	5.0	"				67-136			30	
2-Butanone	ND	5.0	"				58-147			30	
2-Chloroethylvinyl ether	ND	20	"				10-166			30	
2-Chlorotoluene	ND	5.0	"				78-127			30	
2-Hexanone	ND	5.0	"				70-139			30	
4-Chlorotoluene	ND	5.0	"				79-125			30	
4-Methyl-2-pentanone	ND	5.0	"				72-132			30	
Acetone	ND	10	"				36-155			30	
Acrolein	ND	10	"				10-238			30	
Acrylonitrile	ND	5.0	"				66-141			30	
Benzene	ND	5.0	"				77-127			30	
Bromobenzene	ND	5.0	"				77-129			30	
Bromochloromethane	ND	5.0	"				74-129			30	
Bromodichloromethane	ND	5.0	"				81-124			30	
Bromoform	ND	5.0	"				80-136			30	
Bromomethane	ND	5.0	"				32-177			30	
Carbon disulfide	ND	5.0	"				10-136			30	
Carbon tetrachloride	ND	5.0	"				66-143			30	
Chlorobenzene	ND	5.0	"				86-120			30	
Chloroethane	ND	5.0	"				51-142			30	
Chloroform	ND	5.0	"				76-131			30	
Chloromethane	ND	5.0	"				49-132			30	
cis-1,2-Dichloroethylene	ND	5.0	"				74-132			30	
cis-1,3-Dichloropropylene	ND	5.0	"				81-129			30	
Dibromochloromethane	ND	5.0	"				10-200			30	
Dibromomethane	ND	5.0	"				83-124			30	
Dichlorodifluoromethane	ND	5.0	"				28-158			30	
Ethyl Benzene	ND	5.0	"				84-125			30	



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21333 - EPA 5035A											
LCS Dup (BL21333-BSD2)						Prepared & Analyzed: 12/29/2022					
Ethyl Ether	570	50	ug/kg wet				70-130		0.599	30	
Ethyl tert-butyl ether (ETBE)	ND	8.0	"				70-130			30	
Hexachlorobutadiene	ND	5.0	"				83-133			30	
Iodomethane	ND	5.0	"				70-130			30	
Isopropylbenzene	ND	5.0	"				81-127			30	
Methyl Methacrylate	ND	5.0	"				79-125			30	
Methyl tert-butyl ether (MTBE)	ND	5.0	"				74-131			30	
Methylene chloride	ND	10	"				57-141			30	
Naphthalene	ND	10	"				86-141			30	
n-Butylbenzene	ND	5.0	"				80-130			30	
n-Propylbenzene	ND	5.0	"				74-136			30	
o-Xylene	ND	5.0	"				83-123			30	
p- & m- Xylenes	ND	10	"				82-128			30	
p-Diethylbenzene	ND	5.0	"				70-144			30	
p-Ethyltoluene	ND	5.0	"				84-123			30	
p-Isopropyltoluene	ND	5.0	"				85-125			30	
sec-Butylbenzene	ND	5.0	"				83-125			30	
Styrene	ND	5.0	"				86-126			30	
tert-Amyl methyl ether (TAME)	ND	8.0	"				70-130			30	
tert-Butylbenzene	ND	5.0	"				80-127			30	
Tetrachloroethylene	ND	5.0	"				80-129			30	
Tetrahydrofuran	ND	10	"				64-137			30	
Toluene	ND	5.0	"				85-121			30	
trans-1,2-Dichloroethylene	ND	5.0	"				72-132			30	
trans-1,3-Dichloropropylene	ND	5.0	"				78-132			30	
Trichloroethylene	ND	5.0	"				84-123			30	
Trichlorofluoromethane	ND	5.0	"				62-140			30	
Vinyl acetate	ND	5.0	"				67-136			30	
Vinyl Chloride	ND	5.0	"				52-130			30	
Allyl chloride	ND	5.0	"				70-130			30	
n-butyl acetate	68		ug/L	50.0		136	70-130	High Bias	4.03	30	
Chlorodifluoromethane (Freon 22)	550		"	50.0		NR	70-130	High Bias	1.69	30	
cis-decahydronaphthalene	50		"	50.0		99.3	70-130		0.728	30	
trans-decahydronaphthalene	50		"	50.0		100	70-130		3.43	30	
n-Decane	69	5.0	ug/kg wet				70-130		2.20	30	
Ethyl Methacrylate	ND	5.0	"				70-130			30	
Hexachloroethane	ND	5.0	"				70-130			30	
n-Hexane	64		ug/L	50.0		128	70-130		3.48	30	
Limonene	52		"	50.0		104	70-130		1.93	30	
Nitrobenzene	ND	5.0	ug/kg wet				70-130			30	
2-Nitropropane	ND	5.0	"				70-130			30	
n-Nonane	82		ug/L	50.0		164	70-130	High Bias	2.32	30	
n-octane	78		"	50.0		157	70-130	High Bias	0.795	30	
n-undecane	71		"	50.0		142	70-130	High Bias	4.29	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	64.7		"	50.0		129	77-125				
Surrogate: SURR: Toluene-d8	54.0		"	50.0		108	85-120				
Surrogate: SURR: p-Bromofluorobenzene	57.1		"	50.0		114	76-130				



Semivolatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21479 - EPA 3550C

Matrix Spike (BL21479-MS1)		*Source sample: 22L1181-15 (Matrix Spike)					Prepared: 12/24/2022 Analyzed: 12/27/2022				
Acenaphthene	603	88.6	ug/kg dry	885	ND	68.1	13-133				
Anthracene	667	88.6	"	885	ND	75.4	27-128				
Benzo(a)anthracene	700	88.6	"	885	ND	79.0	20-147				
Benzo(a)pyrene	434	88.6	"	885	ND	49.0	18-153				
Benzo(b)fluoranthene	508	88.6	"	885	ND	57.4	10-163				
Benzo(g,h,i)perylene	378	88.6	"	885	ND	42.7	10-157				
Benzo(k)fluoranthene	489	88.6	"	885	ND	55.3	10-157				
Chrysene	633	88.6	"	885	ND	71.5	18-133				
Dibenzo(a,h)anthracene	426	88.6	"	885	ND	48.2	10-146				
Fluoranthene	656	88.6	"	885	ND	74.1	10-155				
Fluorene	605	88.6	"	885	ND	68.4	12-150				
Indeno(1,2,3-cd)pyrene	474	88.6	"	885	ND	53.6	10-155				
Phenanthrene	629	88.6	"	885	ND	71.0	10-151				
Pyrene	702	88.6	"	885	ND	79.3	13-148				
Surrogate: SURR: Nitrobenzene-d5	737		"	885		83.3	22-108				
Surrogate: SURR: 2-Fluorobiphenyl	634		"	885		71.6	21-113				
Surrogate: SURR: Terphenyl-d14	721		"	885		81.4	24-116				

Matrix Spike Dup (BL21479-MSD1)		*Source sample: 22L1181-15 (Matrix Spike Dup)					Prepared: 12/24/2022 Analyzed: 12/27/2022				
Acenaphthene	496	88.6	ug/kg dry	885	ND	56.0	13-133	19.5	30		
Anthracene	537	88.6	"	885	ND	60.6	27-128	21.6	30		
Benzo(a)anthracene	565	88.6	"	885	ND	63.8	20-147	21.3	30		
Benzo(a)pyrene	436	88.6	"	885	ND	49.2	18-153	0.326	30		
Benzo(b)fluoranthene	479	88.6	"	885	ND	54.2	10-163	5.88	30		
Benzo(g,h,i)perylene	351	88.6	"	885	ND	39.7	10-157	7.38	30		
Benzo(k)fluoranthene	462	88.6	"	885	ND	52.2	10-157	5.81	30		
Chrysene	515	88.6	"	885	ND	58.2	18-133	20.6	30		
Dibenzo(a,h)anthracene	386	88.6	"	885	ND	43.6	10-146	9.94	30		
Fluoranthene	525	88.6	"	885	ND	59.4	10-155	22.1	30		
Fluorene	506	88.6	"	885	ND	57.2	12-150	17.8	30		
Indeno(1,2,3-cd)pyrene	423	88.6	"	885	ND	47.8	10-155	11.5	30		
Phenanthrene	506	88.6	"	885	ND	57.2	10-151	21.6	30		
Pyrene	547	88.6	"	885	ND	61.8	13-148	24.8	30		
Surrogate: SURR: Nitrobenzene-d5	647		"	885		73.0	22-108				
Surrogate: SURR: 2-Fluorobiphenyl	522		"	885		59.0	21-113				
Surrogate: SURR: Terphenyl-d14	574		"	885		64.8	24-116				



Polychlorinated Biphenyls by GC/ECD - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21456 - EPA 3550C

Blank (BL21456-BLK2)

Prepared: 12/23/2022 Analyzed: 12/30/2022

Aroclor 1016	ND	0.0167	mg/kg wet								
Aroclor 1221	ND	0.0167	"								
Aroclor 1232	ND	0.0167	"								
Aroclor 1242	ND	0.0167	"								
Aroclor 1248	ND	0.0167	"								
Aroclor 1254	ND	0.0167	"								
Aroclor 1260	ND	0.0167	"								
Total PCBs	ND	0.0167	"								
Surrogate: Tetrachloro-m-xylene	0.0597		"	0.0667		89.5	30-120				
Surrogate: Decachlorobiphenyl	0.0693		"	0.0667		104	30-120				

LCS (BL21456-BS2)

Prepared: 12/23/2022 Analyzed: 12/30/2022

Aroclor 1016	0.283	0.0167	mg/kg wet	0.333		85.0	40-130				
Aroclor 1260	0.301	0.0167	"	0.333		90.2	40-130				
Surrogate: Tetrachloro-m-xylene	0.0553		"	0.0667		83.0	30-120				
Surrogate: Decachlorobiphenyl	0.0587		"	0.0667		88.0	30-120				

Matrix Spike (BL21456-MS2)

*Source sample: 22L1181-15 (Matrix Spike)

Prepared: 12/23/2022 Analyzed: 12/30/2022

Aroclor 1016	0.282	0.0178	mg/kg dry	0.355	ND	79.3	40-140				
Aroclor 1260	0.291	0.0178	"	0.355	ND	81.9	40-140				
Surrogate: Tetrachloro-m-xylene	0.0526		"	0.0711		74.0	30-120				
Surrogate: Decachlorobiphenyl	0.0512		"	0.0711		72.0	30-120				

Matrix Spike Dup (BL21456-MSD2)

*Source sample: 22L1181-15 (Matrix Spike Dup)

Prepared: 12/23/2022 Analyzed: 12/30/2022

Aroclor 1016	0.334	0.0178	mg/kg dry	0.355	ND	94.0	40-140	17.0	50		
Aroclor 1260	0.335	0.0178	"	0.355	ND	94.4	40-140	14.2	50		
Surrogate: Tetrachloro-m-xylene	0.0654		"	0.0711		92.0	30-120				
Surrogate: Decachlorobiphenyl	0.0629		"	0.0711		88.5	30-120				



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21499 - EPA 3015A/1311

Blank (BL21499-BLK1)								Prepared & Analyzed: 12/27/2022			
Lead	ND	0.00556	mg/L								
LCS (BL21499-BS1)								Prepared & Analyzed: 12/27/2022			
Lead	0.447		ug/mL	0.500		89.5	80-120				
Duplicate (BL21499-DUP1)								Prepared & Analyzed: 12/27/2022			
Lead	ND	0.125	mg/L		ND					20	
Leach Fluid Blank (BL21499-LBK1)								Prepared & Analyzed: 12/27/2022			
Lead	ND	0.125	mg/L								
Matrix Spike (BL21499-MS1)								Prepared & Analyzed: 12/27/2022			
Lead	11.7	0.125	mg/L	12.5	ND	93.7	75-125				
Post Spike (BL21499-PS1)								Prepared & Analyzed: 12/27/2022			
Lead	0.569		ug/mL	0.500	0.00104	114	75-125				

Batch BL21707 - EPA 3050B

Blank (BL21707-BLK1)								Prepared: 12/29/2022 Analyzed: 12/30/2022			
Arsenic	ND	1.25	mg/kg wet								
Barium	ND	2.08	"								
Beryllium	ND	0.042	"								
Cadmium	ND	0.250	"								
Chromium	ND	0.417	"								
Copper	ND	1.67	"								
Lead	ND	0.417	"								
Nickel	ND	0.833	"								
Selenium	ND	2.08	"								
Silver	ND	0.417	"								



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21707 - EPA 3050B

Duplicate (BL21707-DUP1)		*Source sample: 22L1228-03 (Duplicate)					Prepared: 12/29/2022 Analyzed: 12/30/2022				
Arsenic	9.32	1.39	mg/kg dry		6.22				39.9	35	Non-dir.
Barium	48.7	2.32	"		38.2				24.2	35	
Beryllium	0.585	0.046	"		0.431				30.4	35	
Cadmium	ND	0.278	"		ND					35	
Chromium	16.7	0.464	"		12.4				30.1	35	
Copper	16.8	1.85	"		13.2				24.4	35	
Lead	43.9	0.464	"		32.9				28.6	35	
Nickel	11.4	0.927	"		8.67				27.5	35	
Selenium	ND	2.32	"		ND					35	
Silver	ND	0.464	"		ND					35	

Matrix Spike (BL21707-MS1)		*Source sample: 22L1228-03 (Matrix Spike)					Prepared: 12/29/2022 Analyzed: 12/30/2022				
Arsenic	179	1.39	mg/kg dry	185	6.22	93.4	75-125				
Barium	248	2.32	"	185	38.2	113	75-125				
Beryllium	5.30	0.046	"	4.64	0.431	105	75-125				
Cadmium	4.49	0.278	"	4.64	ND	97.0	75-125				
Chromium	34.1	0.464	"	18.5	12.4	117	75-125				
Copper	40.2	1.85	"	23.2	13.2	117	75-125				
Lead	80.9	0.464	"	46.4	32.9	103	75-125				
Nickel	60.4	0.927	"	46.4	8.67	112	75-125				
Selenium	125	2.32	"	185	ND	67.3	75-125	Low Bias			
Silver	0.622	0.464	"	4.64	ND	13.4	75-125	Low Bias			

Post Spike (BL21707-PS1)		*Source sample: 22L1228-03 (Post Spike)					Prepared: 12/29/2022 Analyzed: 12/30/2022				
Arsenic	2.16		ug/mL	2.00	0.067	105	75-125				
Barium	2.69		"	2.00	0.412	114	75-125				
Beryllium	0.059		"	0.0500	0.005	108	75-125				
Cadmium	0.054		"	0.0500	0.001	105	75-125				
Chromium	0.347		"	0.200	0.133	107	75-125				
Copper	0.430		"	0.250	0.142	115	75-125				
Lead	0.869		"	0.500	0.355	103	75-125				
Nickel	0.674		"	0.500	0.093	116	75-125				
Selenium	1.56		"	2.00	-0.152	78.1	75-125				
Silver	0.018		"	0.0500	-0.040	35.4	75-125	Low Bias			



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21707 - EPA 3050B

Reference (BL21707-SRM1)						Prepared: 12/29/2022 Analyzed: 12/30/2022					
Arsenic	87.1	1.25	mg/kg wet	87.4		99.7	70-130.4				
Barium	374	2.08	"	347		108	75.2-130.3				
Beryllium	104	0.042	"	103		101	74.8-132				
Cadmium	148	0.250	"	160		92.7	75-145.6				
Chromium	231	0.417	"	231		99.9	70.1-134.2				
Copper	157	1.67	"	144		109	75-126.4				
Lead	253	0.417	"	266		95.0	74.1-125.9				
Nickel	375	0.833	"	350		107	70-144				
Selenium	87.5	2.08	"	130		67.3	66.9-133.8				
Silver	58.5	0.417	"	57.1		102	70.2-129.8				



Mercury by EPA 7000/200 Series Methods - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BL21717 - EPA 7473 soil											
Blank (BL21717-BLK1)								Prepared & Analyzed: 12/29/2022			
Mercury	ND	0.0300	mg/kg wet								
Duplicate (BL21717-DUP1)								Prepared & Analyzed: 12/29/2022			
Mercury	ND	0.0314	mg/kg dry		ND					35	
Matrix Spike (BL21717-MS1)								Prepared & Analyzed: 12/29/2022			
Mercury	0.466		mg/kg	0.500	0.0222	88.8	75-125				
Reference (BL21717-SRM1)								Prepared & Analyzed: 12/29/2022			
Mercury	27.131		mg/kg	27.2		99.7	59.9-140.1				
Batch BL21753 - EPA 7473 soil											
Blank (BL21753-BLK1)								Prepared & Analyzed: 12/30/2022			
Mercury	ND	0.0300	mg/kg wet								
Duplicate (BL21753-DUP1)								Prepared & Analyzed: 12/30/2022			
Mercury	1.74	0.0717	mg/kg dry		1.92				9.63	35	
Matrix Spike (BL21753-MS1)								Prepared & Analyzed: 12/30/2022			
Mercury	1.17		mg/kg	0.500	0.802	72.7	75-125	Low Bias			
Reference (BL21753-SRM1)								Prepared & Analyzed: 12/30/2022			
Mercury	19.193		mg/kg	27.2		70.6	59.9-140.1				



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD Limit	Flag

Batch BL21621 - % Solids Prep

Duplicate (BL21621-DUP1)		*Source sample: 22L1277-01 (Duplicate)					Prepared & Analyzed: 12/28/2022			
% Solids	93.8	0.100	%		94.0			0.270	20	



Leachate Preparations - Quality Control Data
York Analytical Laboratories, Inc. - Stratford

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag

Batch BL21370 - EPA SW 846-1311 TCLP ext. for metals

Blank (BL21370-BLK1)

Prepared: 12/22/2022 Analyzed: 12/23/2022

TCLP Extraction	Completed	1.00	N/A



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
22L1187-01	S-16	40mL Vial with Stir Bar-Cool 4° C
22L1187-02	S-17 DW	40mL Vial with Stir Bar-Cool 4° C
22L1187-04	S-3	40mL Pre-Tared Vial + 10mL MeOH; Cool to 4° C
22L1187-05	S-2	40mL Vial with Stir Bar-Cool 4° C



Sample and Data Qualifiers Relating to This Work Order

S-08	The recovery of this surrogate was outside of QC limits.
S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interferences.
S-03	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. This effect was confirmed by reanalysis.
S-01	The surrogate recovery for this sample may not be available due to sample dilution required from high analyte concentration and/or matrix interferences.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-SPKM	The spike recovery is not within acceptance windows due to sample non-homogeneity, or matrix interference.
M-PS	This Element exhibited recovery outside control limits for the Post Spike.
M-DUPS	The RPD between the native sample and the duplicate is outside of limits due to sample non-homogeneity
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
EXT-Temp	Extraction temperture slightly exceeded acceptance range.
EXT-COMP	Completed
CCVE	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.



- High Bias** High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
- Non-Dir.** Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.



ANALYTICAL REPORT

Lab Number:	L2316688
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Thomas Melia
Phone:	(631) 589-6353
Project Name:	BOMARC
Project Number:	SHD2201
Report Date:	04/13/23

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2316688-01	S-16A (0-6")	SOIL	WEST HAMPTON BEACH, NY	03/30/23 09:50	03/30/23
L2316688-02	S-16A (6-12")	SOIL	WEST HAMPTON BEACH, NY	03/30/23 10:05	03/30/23

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Case Narrative (continued)

Report Submission

April 13, 2023: This final report includes the results of the following analyses:

L2316688-02: PCBs

April 07, 2023: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 04/13/23

ORGANICS

VOLATILES

Project Name: BOMARC

Lab Number: L2316688

Project Number: SHD2201

Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2316688-01
 Client ID: S-16A (0-6")
 Sample Location: WEST HAMPTON BEACH, NY

Date Collected: 03/30/23 09:50
 Date Received: 03/30/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260D
 Analytical Date: 04/04/23 14:47
 Analyst: LAC
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.2	3.3	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.21	1
Chloroform	ND		ug/kg	2.1	0.20	1
Carbon tetrachloride	ND		ug/kg	1.4	0.33	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.18	1
Dibromochloromethane	ND		ug/kg	1.4	0.20	1
2-Chloroethylvinyl ether	ND		ug/kg	29	2.3	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.38	1
Tetrachloroethene	ND		ug/kg	0.72	0.28	1
Chlorobenzene	ND		ug/kg	0.72	0.18	1
Trichlorofluoromethane	ND		ug/kg	5.7	1.0	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.37	1
1,1,1-Trichloroethane	ND		ug/kg	0.72	0.24	1
Bromodichloromethane	ND		ug/kg	0.72	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.39	1
cis-1,3-Dichloropropene	ND		ug/kg	0.72	0.23	1
1,1-Dichloropropene	ND		ug/kg	0.72	0.23	1
Bromoform	ND		ug/kg	5.7	0.35	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.72	0.24	1
Benzene	ND		ug/kg	0.72	0.24	1
Toluene	ND		ug/kg	1.4	0.78	1
Ethylbenzene	ND		ug/kg	1.4	0.20	1
Chloromethane	ND		ug/kg	5.7	1.3	1
Vinyl chloride	ND		ug/kg	1.4	0.48	1
Chloroethane	ND		ug/kg	2.9	0.65	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.20	1
Trichloroethene	ND		ug/kg	0.72	0.20	1

Project Name: BOMARC

Lab Number: L2316688

Project Number: SHD2201

Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2316688-01

Date Collected: 03/30/23 09:50

Client ID: S-16A (0-6")

Date Received: 03/30/23

Sample Location: WEST HAMPTON BEACH, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	2.9	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	2.9	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	2.9	0.24	1
Methyl tert butyl ether	ND		ug/kg	2.9	0.29	1
p/m-Xylene	ND		ug/kg	2.9	0.80	1
o-Xylene	ND		ug/kg	1.4	0.42	1
Xylenes, Total	ND		ug/kg	1.4	0.42	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.25	1
Dibromomethane	ND		ug/kg	2.9	0.34	1
Styrene	ND		ug/kg	1.4	0.28	1
Dichlorodifluoromethane	ND		ug/kg	14	1.3	1
Acetone	79		ug/kg	14	6.9	1
Carbon disulfide	ND		ug/kg	14	6.5	1
2-Butanone	3.2	J	ug/kg	14	3.2	1
Vinyl acetate	ND		ug/kg	14	3.1	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.8	1
1,2,3-Trichloropropane	ND		ug/kg	2.9	0.18	1
2-Hexanone	ND		ug/kg	14	1.7	1
Bromochloromethane	ND		ug/kg	2.9	0.29	1
2,2-Dichloropropane	ND		ug/kg	2.9	0.29	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.40	1
1,3-Dichloropropane	ND		ug/kg	2.9	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.72	0.19	1
Bromobenzene	ND		ug/kg	2.9	0.21	1
n-Butylbenzene	ND		ug/kg	1.4	0.24	1
sec-Butylbenzene	ND		ug/kg	1.4	0.21	1
tert-Butylbenzene	ND		ug/kg	2.9	0.17	1
o-Chlorotoluene	ND		ug/kg	2.9	0.27	1
p-Chlorotoluene	ND		ug/kg	2.9	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.3	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.7	0.24	1
Isopropylbenzene	ND		ug/kg	1.4	0.16	1
p-Isopropyltoluene	0.26	J	ug/kg	1.4	0.16	1
Naphthalene	ND		ug/kg	5.7	0.93	1
Acrylonitrile	ND		ug/kg	5.7	1.6	1
n-Propylbenzene	ND		ug/kg	1.4	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.9	0.46	1

Project Name: BOMARC

Lab Number: L2316688

Project Number: SHD2201

Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2316688-01

Date Collected: 03/30/23 09:50

Client ID: S-16A (0-6")

Date Received: 03/30/23

Sample Location: WEST HAMPTON BEACH, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/kg	2.9	0.39	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.9	0.28	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.9	0.48	1
Acrolein	ND		ug/kg	36	8.1	1
Freon-113	ND		ug/kg	5.7	0.99	1
p-Diethylbenzene	ND		ug/kg	2.9	0.25	1
p-Ethyltoluene	ND		ug/kg	2.9	0.55	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.9	0.27	1
Tetrahydrofuran	ND		ug/kg	5.7	2.3	1
Ethyl ether	ND		ug/kg	2.9	0.49	1
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.9	0.18	1
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.9	0.25	1
2-Nitropropane	ND		ug/kg	7.2	0.28	1
Allyl chloride	ND		ug/kg	7.2	0.14	1
Chlorodifluoromethane	ND		ug/kg	7.2	0.72	1
cis-Decahydronaphthalene	ND		ug/kg	7.2	0.14	1
Decane	ND		ug/kg	7.2	0.61	1
Hexachloroethane	ND		ug/kg	7.2	0.08	1
n-Hexane	ND		ug/kg	7.2	0.25	1
R-Limonene	2.6	J	ug/kg	7.2	0.08	1
Methyl Isothiocyanate	ND		ug/kg	7.2	0.07	1
Methyl methacrylate	ND		ug/kg	7.2	0.08	1
Butyl acetate	ND		ug/kg	7.2	0.10	1
Nitrobenzene	ND		ug/kg	7.2	0.64	1
Nonane	ND		ug/kg	7.2	0.11	1
n-Octane	ND		ug/kg	7.2	0.20	1
trans-Decahydronaphthalene	ND		ug/kg	7.2	0.08	1
n-Undecane	2.1	J	ug/kg	7.2	0.34	1
Iodomethane	ND		ug/kg	14	4.8	1
Ethyl methacrylate	ND		ug/kg	14	2.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	101		70-130

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 04/04/23 14:09
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1762908-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
2-Chloroethylvinyl ether	ND		ug/kg	20	1.6
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 04/04/23 14:09
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1762908-5					
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 04/04/23 14:09
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1762908-5					
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Acrolein	ND		ug/kg	25	5.6
Freon-113	ND		ug/kg	4.0	0.69
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Tetrahydrofuran	ND		ug/kg	4.0	1.6
Ethyl ether	ND		ug/kg	2.0	0.34
Ethyl-Tert-Butyl-Ether	ND		ug/kg	2.0	0.13
Tertiary-Amyl Methyl Ether	ND		ug/kg	2.0	0.18
2-Nitropropane	ND		ug/kg	5.0	0.19
Allyl chloride	ND		ug/kg	5.0	0.09
Chlorodifluoromethane	ND		ug/kg	5.0	0.50
cis-Decahydronaphthalene	ND		ug/kg	5.0	0.10
Decane	ND		ug/kg	5.0	0.42
Hexachloroethane	ND		ug/kg	5.0	0.05
n-Hexane	ND		ug/kg	5.0	0.17
R-Limonene	ND		ug/kg	5.0	0.06
Methyl Isothiocyanate	ND		ug/kg	5.0	0.05
Methyl methacrylate	ND		ug/kg	5.0	0.05

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 04/04/23 14:09
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1762908-5					
Butyl acetate	ND		ug/kg	5.0	0.07
Nitrobenzene	ND		ug/kg	5.0	0.45
Nonane	ND		ug/kg	5.0	0.08
n-Octane	ND		ug/kg	5.0	0.14
trans-Decahydronaphthalene	ND		ug/kg	5.0	0.06
n-Undecane	ND		ug/kg	5.0	0.24
Iodomethane	ND		ug/kg	10	3.4
Ethyl methacrylate	ND		ug/kg	10	1.6

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOMARC

Project Number: SHD2201

Lab Number: L2316688

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1762908-3 WG1762908-4								
Methylene chloride	97		97		70-130	0		30
1,1-Dichloroethane	106		106		70-130	0		30
Chloroform	107		105		70-130	2		30
Carbon tetrachloride	100		100		70-130	0		30
1,2-Dichloropropane	108		107		70-130	1		30
Dibromochloromethane	94		94		70-130	0		30
2-Chloroethylvinyl ether	54	Q	55	Q	70-130	2		30
1,1,2-Trichloroethane	98		97		70-130	1		30
Tetrachloroethene	101		100		70-130	1		30
Chlorobenzene	97		95		70-130	2		30
Trichlorofluoromethane	101		99		70-139	2		30
1,2-Dichloroethane	111		110		70-130	1		30
1,1,1-Trichloroethane	108		107		70-130	1		30
Bromodichloromethane	109		108		70-130	1		30
trans-1,3-Dichloropropene	99		98		70-130	1		30
cis-1,3-Dichloropropene	110		109		70-130	1		30
1,1-Dichloropropene	110		109		70-130	1		30
Bromoform	87		87		70-130	0		30
1,1,2,2-Tetrachloroethane	94		94		70-130	0		30
Benzene	107		106		70-130	1		30
Toluene	96		95		70-130	1		30
Ethylbenzene	98		96		70-130	2		30
Chloromethane	79		79		52-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOMARC

Project Number: SHD2201

Lab Number: L2316688

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1762908-3 WG1762908-4								
Vinyl chloride	91		90		67-130	1		30
Chloroethane	96		94		50-151	2		30
1,1-Dichloroethene	102		101		65-135	1		30
trans-1,2-Dichloroethene	105		104		70-130	1		30
Trichloroethene	108		107		70-130	1		30
1,2-Dichlorobenzene	92		92		70-130	0		30
1,3-Dichlorobenzene	93		92		70-130	1		30
1,4-Dichlorobenzene	93		91		70-130	2		30
Methyl tert butyl ether	111		111		66-130	0		30
p/m-Xylene	98		96		70-130	2		30
o-Xylene	102		101		70-130	1		30
cis-1,2-Dichloroethene	105		104		70-130	1		30
Dibromomethane	110		108		70-130	2		30
Styrene	105		103		70-130	2		30
Dichlorodifluoromethane	91		90		30-146	1		30
Acetone	147	Q	148	Q	54-140	1		30
Carbon disulfide	152	Q	150	Q	59-130	1		30
2-Butanone	127		125		70-130	2		30
Vinyl acetate	121		122		70-130	1		30
4-Methyl-2-pentanone	100		98		70-130	2		30
1,2,3-Trichloropropane	95		95		68-130	0		30
2-Hexanone	108		107		70-130	1		30
Bromochloromethane	107		106		70-130	1		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: BOMARC

Project Number: SHD2201

Lab Number: L2316688

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1762908-3 WG1762908-4								
2,2-Dichloropropane	108		105		70-130	3		30
1,2-Dibromoethane	98		98		70-130	0		30
1,3-Dichloropropane	98		98		69-130	0		30
1,1,1,2-Tetrachloroethane	95		94		70-130	1		30
Bromobenzene	92		91		70-130	1		30
n-Butylbenzene	99		97		70-130	2		30
sec-Butylbenzene	96		95		70-130	1		30
tert-Butylbenzene	94		93		70-130	1		30
o-Chlorotoluene	95		94		70-130	1		30
p-Chlorotoluene	95		94		70-130	1		30
1,2-Dibromo-3-chloropropane	88		88		68-130	0		30
Hexachlorobutadiene	88		87		67-130	1		30
Isopropylbenzene	95		94		70-130	1		30
p-Isopropyltoluene	96		94		70-130	2		30
Naphthalene	100		99		70-130	1		30
Acrylonitrile	108		108		70-130	0		30
n-Propylbenzene	98		96		70-130	2		30
1,2,3-Trichlorobenzene	97		96		70-130	1		30
1,2,4-Trichlorobenzene	95		93		70-130	2		30
1,3,5-Trimethylbenzene	96		94		70-130	2		30
1,2,4-Trimethylbenzene	95		94		70-130	1		30
Acrolein	96		94		70-130	2		30
Freon-113	102		101		50-139	1		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: BOMARC

Project Number: SHD2201

Lab Number: L2316688

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1762908-3 WG1762908-4								
p-Diethylbenzene	98		96		70-130	2		30
p-Ethyltoluene	98		96		70-130	2		30
1,2,4,5-Tetramethylbenzene	100		98		70-130	2		30
Tetrahydrofuran	106		105		66-130	1		30
Ethyl ether	108		104		67-130	4		30
Ethyl-Tert-Butyl-Ether	109		108		70-130	1		30
Tertiary-Amyl Methyl Ether	110		109		70-130	1		30
2-Nitropropane	84		83		70-130	1		30
Allyl chloride	94		92		70-130	2		30
Chlorodifluoromethane	120		119		70-130	1		30
cis-Decahydronaphthalene	88		87		70-130	1		30
Decane	94		92		70-130	2		30
Hexachloroethane	74		73		70-130	1		30
n-Hexane	110		108		70-130	2		30
R-Limonene	103		101		70-130	2		30
Methyl Isothiocyanate	68	Q	69	Q	70-130	1		30
Methyl methacrylate	102		101		70-130	1		30
Butyl acetate	96		96		70-130	0		30
Nitrobenzene	56	Q	59	Q	70-130	5		30
Nonane	94		93		70-130	1		30
n-Octane	90		88		70-130	2		30
trans-Decahydronaphthalene	90		89		70-130	1		30
n-Undecane	103		98		70-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1762908-3 WG1762908-4								
Iodomethane	87		85		70-130	2		30
Ethyl methacrylate	99		100		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		104		70-130
Toluene-d8	95		95		70-130
4-Bromofluorobenzene	101		101		70-130
Dibromofluoromethane	100		100		70-130

SEMIVOLATILES

Project Name: BOMARC

Lab Number: L2316688

Project Number: SHD2201

Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2316688-01
 Client ID: S-16A (0-6")
 Sample Location: WEST HAMPTON BEACH, NY

Date Collected: 03/30/23 09:50
 Date Received: 03/30/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270E
 Analytical Date: 04/05/23 06:38
 Analyst: LJG
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 04/04/23 07:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	34	J	ug/kg	150	20.	1
Fluoranthene	360		ug/kg	110	22.	1
Benzo(a)anthracene	120		ug/kg	110	21.	1
Benzo(a)pyrene	140	J	ug/kg	150	46.	1
Benzo(b)fluoranthene	200		ug/kg	110	32.	1
Benzo(k)fluoranthene	68	J	ug/kg	110	30.	1
Chrysene	150		ug/kg	110	20.	1
Anthracene	40	J	ug/kg	110	37.	1
Benzo(ghi)perylene	83	J	ug/kg	150	22.	1
Fluorene	30	J	ug/kg	190	18.	1
Phenanthrene	320		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	25	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	98	J	ug/kg	150	26.	1
Pyrene	280		ug/kg	110	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	62		30-120
4-Terphenyl-d14	54		18-120

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270E
Analytical Date: 04/05/23 00:44
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 04/04/23 07:59

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1762412-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	98	19.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	68		30-120
2,4,6-Tribromophenol	75		10-136
4-Terphenyl-d14	76		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOMARC

Project Number: SHD2201

Lab Number: L2316688

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1762412-2 WG1762412-3								
Acenaphthene	70		68		31-137	3		50
Fluoranthene	77		75		40-140	3		50
Benzo(a)anthracene	75		72		40-140	4		50
Benzo(a)pyrene	89		84		40-140	6		50
Benzo(b)fluoranthene	80		75		40-140	6		50
Benzo(k)fluoranthene	82		80		40-140	2		50
Chrysene	74		70		40-140	6		50
Anthracene	76		74		40-140	3		50
Benzo(ghi)perylene	76		72		40-140	5		50
Fluorene	75		72		40-140	4		50
Phenanthrene	74		72		40-140	3		50
Dibenzo(a,h)anthracene	78		76		40-140	3		50
Indeno(1,2,3-cd)pyrene	79		75		40-140	5		50
Pyrene	75		74		35-142	1		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	75		73		25-120
Phenol-d6	75		72		10-120
Nitrobenzene-d5	66		63		23-120
2-Fluorobiphenyl	76		74		30-120
2,4,6-Tribromophenol	89		87		10-136
4-Terphenyl-d14	81		78		18-120

PCBS

Project Name: BOMARC**Lab Number:** L2316688**Project Number:** SHD2201**Report Date:** 04/13/23**SAMPLE RESULTS**

Lab ID: L2316688-01
 Client ID: S-16A (0-6")
 Sample Location: WEST HAMPTON BEACH, NY

Date Collected: 03/30/23 09:50
 Date Received: 03/30/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 04/06/23 22:06
 Analyst: JM
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 04/04/23 12:25
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/06/23
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/06/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.8	3.36	1	A
Aroclor 1221	ND		ug/kg	37.8	3.79	1	A
Aroclor 1232	ND		ug/kg	37.8	8.02	1	A
Aroclor 1242	ND		ug/kg	37.8	5.10	1	A
Aroclor 1248	ND		ug/kg	37.8	5.67	1	A
Aroclor 1254	525		ug/kg	37.8	4.14	1	B
Aroclor 1260	ND		ug/kg	37.8	6.99	1	A
Aroclor 1262	ND		ug/kg	37.8	4.80	1	A
Aroclor 1268	ND		ug/kg	37.8	3.92	1	A
PCBs, Total	525		ug/kg	37.8	3.36	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	84		30-150	B

Project Name: BOMARC

Lab Number: L2316688

Project Number: SHD2201

Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2316688-02
 Client ID: S-16A (6-12")
 Sample Location: WEST HAMPTON BEACH, NY

Date Collected: 03/30/23 10:05
 Date Received: 03/30/23
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 04/11/23 23:02
 Analyst: JM
 Percent Solids: 92%

Extraction Method: EPA 3546
 Extraction Date: 04/11/23 08:09
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/11/23
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/11/23

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.7	3.08	1	A
Aroclor 1221	ND		ug/kg	34.7	3.48	1	A
Aroclor 1232	ND		ug/kg	34.7	7.36	1	A
Aroclor 1242	ND		ug/kg	34.7	4.68	1	A
Aroclor 1248	ND		ug/kg	34.7	5.20	1	A
Aroclor 1254	512		ug/kg	34.7	3.80	1	B
Aroclor 1260	ND		ug/kg	34.7	6.41	1	A
Aroclor 1262	ND		ug/kg	34.7	4.41	1	A
Aroclor 1268	ND		ug/kg	34.7	3.60	1	A
PCBs, Total	512		ug/kg	34.7	3.08	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	60		30-150	B

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 04/06/23 22:30
 Analyst: JM

Extraction Method: EPA 3546
 Extraction Date: 04/04/23 12:25
 Cleanup Method: EPA 3665A
 Cleanup Date: 04/06/23
 Cleanup Method: EPA 3660B
 Cleanup Date: 04/06/23

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1762579-1						
Aroclor 1016	ND		ug/kg	31.9	2.84	A
Aroclor 1221	ND		ug/kg	31.9	3.20	A
Aroclor 1232	ND		ug/kg	31.9	6.77	A
Aroclor 1242	ND		ug/kg	31.9	4.31	A
Aroclor 1248	ND		ug/kg	31.9	4.79	A
Aroclor 1254	ND		ug/kg	31.9	3.50	A
Aroclor 1260	ND		ug/kg	31.9	5.90	A
Aroclor 1262	ND		ug/kg	31.9	4.06	A
Aroclor 1268	ND		ug/kg	31.9	3.31	A
PCBs, Total	ND		ug/kg	31.9	2.84	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	A
Decachlorobiphenyl	101		30-150	A
2,4,5,6-Tetrachloro-m-xylene	97		30-150	B
Decachlorobiphenyl	102		30-150	B

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 04/11/23 12:06
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 04/10/23 19:29
Cleanup Method: EPA 3665A
Cleanup Date: 04/11/23
Cleanup Method: EPA 3660B
Cleanup Date: 04/11/23

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 02 Batch: WG1764923-1						
Aroclor 1016	ND		ug/kg	31.5	2.80	A
Aroclor 1221	ND		ug/kg	31.5	3.16	A
Aroclor 1232	ND		ug/kg	31.5	6.68	A
Aroclor 1242	ND		ug/kg	31.5	4.25	A
Aroclor 1248	ND		ug/kg	31.5	4.72	A
Aroclor 1254	ND		ug/kg	31.5	3.45	A
Aroclor 1260	ND		ug/kg	31.5	5.82	A
Aroclor 1262	ND		ug/kg	31.5	4.00	A
Aroclor 1268	ND		ug/kg	31.5	3.26	A
PCBs, Total	ND		ug/kg	31.5	2.80	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	76		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOMARC

Project Number: SHD2201

Lab Number: L2316688

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1762579-2 WG1762579-3									
Aroclor 1016	98		89		40-140	10		50	A
Aroclor 1260	94		86		40-140	9		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		84		30-150	A
Decachlorobiphenyl	102		95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	96		86		30-150	B
Decachlorobiphenyl	102		95		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: BOMARC

Project Number: SHD2201

Lab Number: L2316688

Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 Batch: WG1764923-2 WG1764923-3									
Aroclor 1016	75		77		40-140	3		50	A
Aroclor 1260	73		74		40-140	1		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		86		30-150	A
Decachlorobiphenyl	85		87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		89		30-150	B
Decachlorobiphenyl	78		83		30-150	B

METALS

Project Name: BOMARC

Lab Number: L2316688

Project Number: SHD2201

Report Date: 04/13/23

SAMPLE RESULTS

Lab ID: L2316688-01

Date Collected: 03/30/23 09:50

Client ID: S-16A (0-6")

Date Received: 03/30/23

Sample Location: WEST HAMPTON BEACH, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.73		mg/kg	0.435	0.090	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Barium, Total	13.4		mg/kg	0.435	0.076	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Beryllium, Total	0.105	J	mg/kg	0.217	0.014	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Cadmium, Total	0.112	J	mg/kg	0.435	0.043	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Chromium, Total	3.89		mg/kg	0.435	0.042	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Copper, Total	5.47		mg/kg	0.435	0.112	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Lead, Total	36.4		mg/kg	2.17	0.116	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Mercury, Total	ND		mg/kg	0.078	0.051	1	04/01/23 00:20	04/03/23 10:26	EPA 7471B	1,7471B	ZNK
Nickel, Total	2.22		mg/kg	1.09	0.105	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Selenium, Total	ND		mg/kg	0.870	0.112	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL
Silver, Total	ND		mg/kg	0.217	0.123	1	03/31/23 23:35	04/03/23 19:07	EPA 3050B	1,6010D	GCL



Project Name: BOMARC

Lab Number: L2316688

Project Number: SHD2201

Report Date: 04/13/23

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1761421-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB
Barium, Total	ND		mg/kg	0.400	0.070	1	03/31/23 23:35	04/03/23 17:03	1,6010D	GCL
Beryllium, Total	ND		mg/kg	0.200	0.013	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB
Chromium, Total	ND		mg/kg	0.400	0.038	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB
Copper, Total	ND		mg/kg	0.400	0.103	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB
Lead, Total	ND		mg/kg	2.00	0.107	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB
Nickel, Total	ND		mg/kg	1.00	0.097	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB
Selenium, Total	ND		mg/kg	0.800	0.103	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB
Silver, Total	ND		mg/kg	0.200	0.113	1	03/31/23 23:35	04/03/23 13:23	1,6010D	DMB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1761423-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	04/01/23 00:20	04/03/23 09:43	1,7471B	ZNK

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1761421-2 SRM Lot Number: D116-540								
Arsenic, Total	104		-		82-119	-		
Barium, Total	88		-		82-118	-		
Beryllium, Total	99		-		82-118	-		
Cadmium, Total	99		-		82-118	-		
Chromium, Total	96		-		81-118	-		
Copper, Total	96		-		83-117	-		
Lead, Total	98		-		83-117	-		
Nickel, Total	98		-		82-118	-		
Selenium, Total	104		-		78-122	-		
Silver, Total	102		-		79-121	-		
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1761423-2 SRM Lot Number: D116-540								
Mercury, Total	102		-		58-142	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1761421-3 WG1761421-4 QC Sample: L2316234-04 Client ID: MS Sample												
Arsenic, Total	20.8	13.6	30.4	71	Q	30.3	68	Q	75-125	0		20
Barium, Total	50.6	226	234	81		246	84		75-125	5		20
Beryllium, Total	0.629	5.66	5.40	84		5.68	87		75-125	5		20
Cadmium, Total	0.191J	6	5.30	88		5.48	89		75-125	3		20
Chromium, Total	13.0	22.6	31.1	80		33.9	90		75-125	9		20
Copper, Total	21.5	28.3	43.8	79		48.0	91		75-125	9		20
Lead, Total	24.0	60	68.2	74	Q	68.8	73	Q	75-125	1		20
Nickel, Total	28.0	56.6	72.5	79		77.1	84		75-125	6		20
Selenium, Total	ND	13.6	12.5	92		12.7	91		75-125	2		20
Silver, Total	ND	5.66	5.22	92		5.40	93		75-125	3		20

Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1761421-7 WG1761421-8 QC Sample: L2316685-01 Client ID: MS Sample												
Arsenic, Total	0.510J	14.6	15.2	104		16.1	106		75-125	6		20
Barium, Total	19.9	242	233	88		266	97		75-125	13		20
Beryllium, Total	0.604	6.06	6.27	93		7.19	104		75-125	14		20
Cadmium, Total	1.21	6.43	6.78	87		7.57	95		75-125	11		20
Chromium, Total	1.08	24.2	23.2	91		26.8	101		75-125	14		20
Copper, Total	14.2	30.3	42.1	92		46.8	103		75-125	11		20
Lead, Total	76.1	64.3	136	93		138	92		75-125	1		20
Nickel, Total	3.85	60.6	55.7	86		63.9	95		75-125	14		20
Selenium, Total	ND	14.6	15.6	107		16.6	109		75-125	6		20
Silver, Total	ND	6.06	5.62	93		6.49	102		75-125	14		20

Matrix Spike Analysis
Batch Quality Control

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1761423-3 QC Sample: L2315970-01 Client ID: MS Sample									
Mercury, Total	0.693	2.41	2.80	87	-	-	80-120	-	20

Lab Duplicate Analysis
*Batch Quality Control***Project Name:** BOMARC**Project Number:** SHD2201**Lab Number:** L2316688**Report Date:** 04/13/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1761423-4 QC Sample: L2315970-01 Client ID: DUP Sample						
Mercury, Total	0.693	0.849	mg/kg	20		20

INORGANICS & MISCELLANEOUS

Project Name: BOMARC**Project Number:** SHD2201**Lab Number:** L2316688**Report Date:** 04/13/23**SAMPLE RESULTS****Lab ID:** L2316688-01**Client ID:** S-16A (0-6")**Sample Location:** WEST HAMPTON BEACH, NY**Date Collected:** 03/30/23 09:50**Date Received:** 03/30/23**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.5		%	0.100	NA	1	-	04/01/23 12:24	121,2540G	ROI



Project Name: BOMARC**Project Number:** SHD2201**Lab Number:** L2316688**Report Date:** 04/13/23**SAMPLE RESULTS****Lab ID:** L2316688-02**Client ID:** S-16A (6-12")**Sample Location:** WEST HAMPTON BEACH, NY**Date Collected:** 03/30/23 10:05**Date Received:** 03/30/23**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.3		%	0.100	NA	1	-	04/08/23 10:09	121,2540G	ROI



Lab Duplicate Analysis

Batch Quality Control

Project Name: BOMARC

Project Number: SHD2201

Lab Number: L2316688

Report Date: 04/13/23

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1761536-1 QC Sample: L2316685-01 Client ID: DUP Sample						
Solids, Total	62.1	63.1	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1764270-1 QC Sample: L2318121-01 Client ID: DUP Sample						
Solids, Total	68.5	70.7	%	3		20

Project Name: BOMARC
Project Number: SHD2201

Serial_No:04132309:55
Lab Number: L2316688
Report Date: 04/13/23

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2316688-01A	Vial MeOH preserved	A	NA		4.0	Y	Absent		NYSUFFOLK-8260HLW(14)
L2316688-01B	Vial water preserved	A	NA		4.0	Y	Absent	31-MAR-23 06:39	NYSUFFOLK-8260HLW(14)
L2316688-01C	Vial water preserved	A	NA		4.0	Y	Absent	31-MAR-23 06:39	NYSUFFOLK-8260HLW(14)
L2316688-01D	Plastic 120ml unpreserved	A	NA		4.0	Y	Absent		TS(7)
L2316688-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.0	Y	Absent		BE-Ti(180),BA-Ti(180),AS-Ti(180),AG-Ti(180),CR-Ti(180),NI-Ti(180),SE-Ti(180),PB-Ti(180),CU-Ti(180),HG-T(28),CD-Ti(180)
L2316688-01F	Glass 250ml/8oz unpreserved	A	NA		4.0	Y	Absent		NYSUFFOLK-8270(14),NYTCL-8082(365)
L2316688-02A	Vial MeOH preserved	A	NA		4.0	Y	Absent		HOLD-8260HLW(14)
L2316688-02B	Vial water preserved	A	NA		4.0	Y	Absent	31-MAR-23 06:39	HOLD-8260HLW(14)
L2316688-02C	Vial water preserved	A	NA		4.0	Y	Absent	31-MAR-23 06:39	HOLD-8260HLW(14)
L2316688-02D	Plastic 120ml unpreserved	A	NA		4.0	Y	Absent		TS(7)
L2316688-02E	Glass 60mL/2oz unpreserved	A	NA		4.0	Y	Absent		HOLD-METAL(180)
L2316688-02F	Glass 250ml/8oz unpreserved	A	NA		4.0	Y	Absent		HOLD-8270(14),NYTCL-8082(365)

Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: BOMARC
Project Number: SHD2201

Lab Number: L2316688
Report Date: 04/13/23

Data Qualifiers

Identified Compounds (TICs).

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

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Project Name: BOMARC
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Lab Number: L2316688
Report Date: 04/13/23

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 19

Published Date: 4/2/2021 1:14:23 PM

Page 1 of 1

Certification Information**The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

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