

Pre-Design Sampling and Remedial Technology Evaluation Report for VOC Source Area

Operable Unit 3 (Former Grumman Settling Ponds),
Bethpage, New York
NYSDEC Site # 1-30-003A

October 16, 2015




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Remedial Technology
Evaluation Report for VOC
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Bethpage, New York
NYSDEC Site # 1-30-003A

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Acronyms and Abbreviations

Arcadis	Arcadis of New York, Inc. formerly ARCADIS
Park	Bethpage Community Park
Bls	below land surface
DSITMS	Direct-sampling ion trap mass spectrometer
ELAP	Environmental Laboratory Accreditation Program
ELLE	Eurofins Lancaster Laboratories Environmental
FS	Feasibility Study
Ft	Feet
ISTD	In-Situ Thermal Desorption
ISTR	In-Situ Thermal Remediation
Northrop Grumman	Northrop Grumman Systems Corporation
NCDOH	Nassau County Department of Health
NYCRR	New York Code of Rules and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OU	Operable Unit
Park	Bethpage Community Park
mg/kg	milligrams per kilogram
RI	Remedial Investigation
ROD	Record of Decision
QAP	Quality Assurance Plan

SVE	Soil vapor extraction
TCL	Target Compound List
Town	Town of Oyster Bay
TriadES	Triad Environmental Services
TVOCs	Total volatile organic compounds
USEPA	United States Environmental Protection Agency
VOCs	Volatile organic compounds



1. Introduction

This Pre-Design Sampling and Remedial Technology Evaluation Report for the Volatile Organic Compound (VOC) Source Area (Pre-Design Report) has been prepared by Arcadis of New York, Inc. (Arcadis), on behalf of Northrop Grumman Systems Corporation (Northrop Grumman), in accordance with the Order on Consent for Operable Unit 3 (OU3) (NYSDEC 2014). The pre-design sampling was conducted to further characterize and delineate the VOC source area in the Bethpage Community Park (Park) in Bethpage, New York (see **Figure 1** for general site location and **Figure 2** for site area features).

The pre-design sampling activities were performed pursuant to the New York State Department of Environmental Conservation (NYSDEC) approved Pre-Design Sampling Work Plan for VOC Source Area (Work Plan; EMAGIN 2014), the NYSDEC- approved Work Plan Addendum (ARCADIS 2014), and the Work Plan Addendum for Additional Soil Sampling (TCLP VOCs and Metals) (ARCADIS 2015a). This investigation focused primarily on two separate areas, the Former Rag Pit (Area 1) and a VOC-impacted area northwest of the Former Rag Pit (Area 2) (see **Figure 3**). These two areas comprise the portion of the Park that was formerly used as a baseball field and is hereafter referred to as the “ball field”. A summary of the field activities is provided in Section 4 of this report.

2. Background

As described in the Site Area Remedial Investigation (RI) Report (ARCADIS 2011a) and the Site Area Feasibility Study (FS) Report (ARCADIS 2011b), the vadose zone (including the low permeability zone [LPZ]) within Area 1 and Area 2 in the ball field is impacted with total VOCs (TVOCs) greater than 10 milligrams per kilogram (mg/kg). For the purposes of this project, and consistent with the methodology employed in the FS, TVOCs in concentrations greater than 10 mg/kg are considered to be indicative of a potential VOC source to groundwater, as defined in 6 NYCRR Part 375-1.2.

Since 2008, Northrop Grumman has operated the Bethpage Park Soil Gas Containment System (BPSGCS) on the adjoining former McKay Field and Grumman Plant 24 Access Road properties. The BPSGCS continuously extracts vapor from the subsurface via extraction wells and prevents VOCs in soil gas from migrating from the Park. Since 2009, Northrop Grumman has operated the Bethpage Park Groundwater Containment System (BPGWCS; previously referred to as the Groundwater Interim Remedial Measure) along the southern boundary of the Park. The BPGWCS

continuously extracts groundwater from the subsurface via four remedial wells and controls VOCs in groundwater from migrating from the Park.

Following issuance of the FS, the OU3 Record of Decision (ROD; NYSDEC 2013) selected a remedy for the “VOC rag pit area source area(s) in a low permeability zone present approximately 40 feet bgs” consisting of in-situ thermal desorption and soil vapor extraction (ISTD/SVE) or an alternative, in-situ treatment technology capable of achieving comparable removals.

3. Objectives of the Pre-Design Sampling

The pre-design sampling was conducted to meet the following objectives:

1. Refine the characterization and delineation of the VOC source area(s) in the vadose zone to support the design of the remedy.
2. Re-evaluate the sustainability and cost effectiveness of the ROD remedy in consideration of the refined characterization and delineation.

4. Field Methods

4.1 Preliminary Activities

The following activities were conducted to prepare for sampling:

- Vegetation was cleared from the ball field.
- In accordance with the Work Plan, the thickness of cover material placed by the Town of Oyster Bay (Town) in 2012 to allow the ball field area to be used for Town equipment storage was measured prior to sampling to adjust the sampling intervals to correspond to the original grade.
- A property access agreement was signed with the Town to conduct sampling and related activities on the Town’s property.
- A 20-foot sampling grid was surveyed and staked over the ball field area to guide sampling activities and record sampling locations (see **Figure 3**). The alphanumeric grid points were used in the sample identification numbers, with a few exceptions (see **Table 1**).

4.2 First Phase of Sampling per Work Plan

VOC pre-design sampling was conducted in early November 2014 in accordance with the NYSDEC-approved Work Plan. The pre-design sampling was focused in Areas 1 and 2 of the ball field where vadose zone soil was found to contain TVOCs above 10 mg/kg during the RI. These areas are shown on **Figure 3**.

Soil samples from the initial 24 soil borings identified in the Work Plan were collected using direct-push drilling rigs equipped with Dual-Tube or Macro-Core® samplers (depending on sample depth). Sampling locations are shown on **Figure 3** and depths are described in **Tables 1** and **2**. Samples were generally collected at 4-foot vertical intervals in each boring unless otherwise noted in the tables.

Soil samples were analyzed for VOCs in real-time using Triad Environmental Services' (TriadES) mobile laboratory (field analytical method), the direct-sampling ion trap mass spectrometer (DSITMS) and United States Environmental Protection Agency (USEPA) Method 8265. Approximately 15 percent of the field analysis samples were also submitted for confirmatory analysis to Eurofins Lancaster Laboratories Environmental (ELLE) of Lancaster, Pennsylvania (fixed base laboratory), an Environmental Laboratory Accreditation Program (ELAP) New York State Department of Health (NYSDOH) certified laboratory. Confirmatory analyses were conducted on extracts, from the original "parent" samples, prepared by TriadES. These samples were analyzed for the Target Compound List (TCL) VOCs using USEPA Method 8260c. **Table 2** provides a summary of the VOC samples analyzed using field analytical method and at the fixed base laboratory.

4.3 Second Phase of Sampling per Work Plan Addendum

Following receipt and review of the VOC sampling results from the initial 24 borings, it was determined that additional sampling was needed to more precisely delineate the VOC source area(s). Accordingly, a Work Plan Addendum (ARCADIS 2014) was prepared, which included drilling and sampling of 16 additional soil borings (based on screening results received during the field work 3 more borings were drilled, bringing the total additional borings drilled/sampled to 19). The additional phase of VOC pre-design sampling was conducted between mid-November and mid-December, 2014 in accordance with the NYSDEC-approved Work Plan Addendum. Of the 19 additional soil borings, 10 were drilled at locations previously sampled during the RI activities to evaluate changes in the TVOC concentrations since the RI. The remaining 9 borings were drilled near Areas 1 and 2 as step-out borings to refine the delineation of the VOC

source area(s). Sampling locations are shown on **Figure 3** and depths are described in **Tables 1** and **2**. Samples were generally collected at 3-foot vertical intervals in each boring unless otherwise noted in the tables.

The additional soil samples were analyzed in real time using the TriadES mobile laboratory and the DSITMS USEPA Method 8265, with approximately 15 percent of the samples also analyzed by the fixed base laboratory, ELLE, for TCL VOCs using USEPA Method 8260c. The procedures and protocols implemented were consistent with the NYSDEC-approved Work Plan.

4.4 **TCLP Sampling**

ARCADIS collected 15 additional samples for analysis of selected VOCs using the toxicity characteristic leaching procedure (TCLP). The purpose of these analyses was to evaluate if soils might potentially be classified as hazardous waste if excavated. TCLP sampling was conducted in mid-May 2015 in accordance with the Work Plan Addendum for Additional Soil Sampling (TCLP VOCs and Metals) (ARCADIS 2015a).

4.5 **Field and Laboratory Documentation**

Soil boring field logs and back-up documentation are included in the following appendices:

- **Appendix A – Sample/Core Logs**
- **Appendix B – Community Air Monitoring Data.**
Air monitoring for volatile organic compounds and particulates (i.e., dust) was performed in accordance with the Community Air Monitoring Plan referenced in the Work Plan.
- **Appendix C – IDW Characterization Data and Disposal Manifests.**
Investigation derived waste (IDW) produced during sampling activities was collected, containerized, and temporarily stored at the Northrop Grumman facility before being characterized (as required by the disposal facility) and disposed by the fixed base laboratory at an approved facility.
- **Appendix D – Data Usability Summary Report. (DUSR) (fixed laboratory only)**

The DUSR provides an evaluation of the analytical data to determine if it meets the site-specific criteria for data quality and use.

- **Appendix E – Laboratory Reports (Field Analytical and Fixed Base laboratories)**

5. Results and Interpretation

This section provides a summary of the results of the pre-design sampling. **Table 3** presents VOC concentrations in soil samples analyzed by the field analytical method and **Table 4** presents VOC concentration in soil samples analyzed by the fixed base laboratory. Samples that exhibited TVOC concentrations greater than 10 mg/kg are highlighted (outlined) in **Tables 3** and **4**.

5.1 Data Quality Review

The quality of the mobile laboratory data was evaluated by examining the laboratory's internal data quality assurance/quality control (QA/QC) results and by comparing the mobile laboratory data to the fixed base laboratory results for confirmation samples.

The mobile laboratory's internal QA/QC program performed QA/QC checks (sample blank, continuing calibration check, performance check, matrix spike, and duplicate analysis) for a minimum of every 20 samples analyzed. (See Appendix E for data). Acceptance criteria defined by TriadES' Quality Assurance Plan (QAP) were met. The criteria included:

- 30% (+/-) for analysis of continuing calibration check standards versus externally purchased performance check standards.
- 30% (+/-) for matrix spike analyses.
- 30% relative difference for duplicate analyses.
- Results less than the method detection limit for blank analyses.

Approximately 15 percent of the mobile laboratory samples were submitted for confirmatory analysis at the fixed base laboratory. A summary of the comparison is provided on **Table 5**, which lists the mobile laboratory concentration in one column and the fixed base laboratory concentration in the adjacent column. The final column of the

table identifies whether the mobile laboratory data and fixed base laboratory data lead to the same conclusion relative to the 10 mg/kg TVOC threshold used in the Work Plan. The table demonstrates that the results of the mobile laboratory and fixed base laboratory are in agreement approximately 95 percent of the time. Based on the mobile laboratory's internal QAQC results and the comparison with the fixed base laboratory's results, the mobile laboratory and fixed laboratory results are considered acceptable for meeting the objectives described in Section 3.

5.2 TVOC Distribution

An Environmental Visualization Software (EVS) model was used to contour data in three dimensions. The contours produced by the EVS model were then reviewed by ARCADIS and modified based on experience and site conditions.

The areal extent of TVOCs in the subsurface is presented on **Figure 4** and the vertical extent of TVOCs for Areas 1 and 2 are shown on **Figures 5** and **6**, respectively. The observed subsurface distribution of TVOCs has the following characteristics:

- TVOCs greater than 10 mg/kg were found in Areas 1 and 2.
- In both of the above areas, TVOC concentrations above 10 mg/kg, indicative of source areas, are generally present at two depth intervals:
 - Approximately 5 to 15 feet below land surface (ft bls), with a maximum concentration of 4,600 mg/kg in Area 1 and a maximum concentration of 880 mg/kg in Area 2.
 - Approximately 40 to 55 ft bls, with a maximum concentration of 4,800 mg/kg in Area 1 and a maximum concentration of 17 mg/kg in Area 2.
- TVOC impacts above 10 mg/kg were not observed at depths from approximately 15 to 40 ft bls in either Area 1 or Area 2. This finding differs from the Site Area RI results (2005 to 2007), which indicated TVOC concentrations above 10 mg/kg in soil at depths from 5 to 55 ft bls. This reduction in TVOCs, since completion of the RI, is likely due to the beneficial effect of the BPSGCS.
- TVOC concentrations above 10 mg/kg are present in both Areas 1 and 2 in the LPZ (in the 40 to 55 ft bls interval). The LPZ was previously identified during the RI as consisting predominately of clay with thin seams of silt and sand.

- In Area 1, toluene and trichloroethene (TCE) are the predominant TVOCs in both the shallow and deep intervals. In Area 2, toluene is the predominant TVOC in the shallow interval and toluene and TCE are the predominant TVOCs in the deep interval.
- Changes in TVOC concentrations since the RI sampling in 2005-2007 were evaluated at selected locations. **Figures 7, 8, and 9** compare the pre-design TVOC soil concentrations versus depth to the data collected during the RI. These figures indicate that, since sampling during the RI, TVOC concentrations have generally decreased by several orders of magnitude in the permeable (sandy) intervals over which the BPSGCS extraction wells are screened (approximately 10-50 ft bls). This observed decrease in TVOC concentrations is likely due to the effect of the BPSGCS wells extracting VOC-impacted soil gas from the sandy zones in the Park soils. The clayey LPZ (40-55 ft bls) exhibited a smaller reduction over time in VOC concentrations, with some increases evident. This observation may be due to the lower permeability of the LPZ soils which restricts airflow and, therefore, limits the ability of the BPSGCS wells to extract soil gas.

5.3 TCLP Evaluation

TCLP results are summarized in **Table 6**.

- Of the 10 individual VOCs with applicable TCLP values under the Resource Conservation and Recovery Act (RCRA), only tetrachloroethene (PCE) and TCE were detected in the TCLP extract. PCE was detected in one sample, and TCE was detected in five samples.
- Only TCE exceeded the TCLP criteria in the samples analyzed.

If needed for evaluating possible soil excavation approaches, further TCLP characterization of soils with elevated VOC concentrations may be conducted.

6. Remedial Technologies Evaluation

6.1 Introduction

The OU3 ROD selected a remedy for the deep VOC source area(s) consisting of in-situ thermal desorption and soil vapor extraction (ISTD/SVE) or an alternative in-situ

treatment technology capable of achieving comparable removals. VOCs greater than 10 mg/kg (i.e., target treatment zones) are present in deep vadose zone soils (approximately 40-55 ft bls), with a total estimated volume of 2,700 cubic yards.

The remedial action objective (RAO) for the remedy is to remove the source by reducing the TVOCs in the deep VOC source areas (approximately 40-55 ft bls) to an average less than 10 mg/kg. This would be a modification of the ROD specification to treat to protection of groundwater SCOs, but is consistent with 6 NYCRR Part 375-6.5, which provides an exception to protection of groundwater SCOs when:

- The on-site source is addressed by the remedial program. The TVOC source would be addressed by ISTR/SVE to remediate TVOCs as high as 4,800 mg/kg in the source area(s) to an average of less than 10 mg/kg.
- An environmental easement will be put in place which provides for a groundwater use restriction on the site. An environmental easement would be put in place as part of the remedy to restrict groundwater use on the site.
- The remedy includes controls or treatment to address off-site migration. Continued operation of the BPGWCS controls off-site migration of contaminated groundwater downgradient of the source area(s).
- Groundwater quality will improve over time. Steady improvement in groundwater quality over time has been demonstrated in quarterly and annual effectiveness reports for the BPGWCS (ARCADIS 2015).

Based on the RAO and distribution of VOC impacts in the low permeability zone, the remedial technology applicable to the VOC source area(s) is in-situ thermal remediation/soil vapor extraction (ISTR/SVE), using either thermal conductive heating or electrical resistivity heating. This technology is protective of public health and the environment, will meet the applicable RAO, will achieve permanent and significant reduction of toxicity, mobility, and volume of contamination, and is technically and administratively feasible to implement.

6.2 Conceptual Design for ISTR/SVE

An ISTR system consists of a network of both heater wells (electric or gas-fired) and soil vapor extraction (SVE) wells screened within various depth intervals of the target treatment zone. The target treatment zone for the VOCs in Areas 1 and 2 would

consist of approximately 2,700 cubic yards of soil. The conceptual remedial design for VOCs would consist of the following elements (see **Figure 10** for a conceptual site plan):

- Approximately 85 heater wells to heat the soil and generate a temperature gradient. The temperature gradient allows the VOCs to volatilize by increasing their vapor pressure.
- 20 SVE wells to capture the volatilized VOCs and convey them to an effluent treatment system.
- An ISTR effluent treatment system to meet applicable air and water discharge SCGs. The system typically would include a heat exchanger, knockout tank, process blower, transfer pump, vapor treatment (i.e., thermal oxidizer and scrubber) and liquid treatment (i.e. activated carbon).
- An impermeable cover (e.g., synthetic liner) installed at land surface throughout and beyond the extent of the target treatment zone to enhance the extraction of the volatilized VOCs and minimize short circuiting to the atmosphere,
- A power distribution system for the heaters would be installed adjacent to the treatment area. Controls and SVE conveyance piping would be installed on top of the insulating cover.

Based on the estimated volume of the target treatment zone, current baseline VOC concentrations, and performance of the technology at similar sites, the ISTR/SVE system would operate for approximately 6 to 8 months. Based on the extensive knowledge regarding geologic and hydrologic conditions at the Site as well as information regarding the concentrations and distribution of constituents of concern throughout the project area, performance of the ISTR system can be accurately predicted. These performance predictions are based on Arcadis' extensive experience at sites with similar geology, hydrogeology, constituents of concern, and remedial objectives. Comparable technologies that meet the RAO and comply with applicable regulations may also be considered.

7. Conclusions

The following conclusions are made based on the data provided in this report:

- The pre-design sampling has achieved its stated objectives of refining the characterization and delineation of the VOC source areas in the vadose zone and supporting the design of the remedy.
- The results of the sampling confirmed that Area 1 and Area 2 exhibit TVOCs at concentrations in soil greater than 10 mg/kg. TVOCs greater than 10 mg/kg are present in those areas, mostly over two depth intervals, at approximately 5 to 15 ft bls and 40-55 ft bls.
- The estimated volume of soil in the low permeability zone from 40-55 ft bls with TVOCs greater than 10 mg/kg for Areas 1 and 2 combined is 2,700 cubic yards.
- TVOC concentrations greater than 10 mg/kg were generally not observed in the 15 to 40 ft bls zone, which had exhibited concentrations greater than 10 mg/kg during the RI. In general, VOC concentrations in Areas 1 and 2 have decreased substantially in the permeable soil interval (i.e., 15 – 40 ft bls) since completion of the OU3 Site Area RI, likely due to the effect of the BPSGCS. Smaller VOC reductions in the deeper LPZ soils (40-55 ft bls) were observed in those areas, likely because the BPSGCS had a lesser impact on the low-permeability soils in the LPZ.
- ISTR/SVE for VOCs is an effective remedial technology that is capable of meeting the RAO.

8. References

ARCADIS 2015. Operation, Maintenance, and Monitoring Report for the Bethpage Park Groundwater Containment System, 2014 Annual Summary, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York. NYSDEC 1-30-003A, August 27, 2015.

ARCADIS 2011a. Remedial Investigation Report (Site Area). Operable Unit 3 – Former Grumman Settling Ponds, Bethpage, New York. February 8, 2011.

ARCADIS 2011b. Site Area Feasibility Study, Operable Unit 3 – Former Grumman Settling Ponds, Bethpage, New York. March 4, 2011.

ARCADIS 2014. Pre-Design Sampling Work Plan Addendum for VOC Source Area.

ARCADIS 2015a. Work Plan Addendum for Additional Soil Sampling (TCLP VOCs and Metals), Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York. April 29, 2015.

EMAGIN 2014. Pre-Design Sampling Work Plan for VOC Source Area. Operable Unit 3, Former Grumman Settling Ponds, Bethpage, New York. May 1, 2014.

New York State Department of Environmental Conservation (NYSDEC) 2013. Operable Unit 3 Record of Decision. October 2013.

New York State Department of Environmental Conservation (NYSDEC). 2014. Order On Consent. May 2014.



Tables

Table 1. Volatile Organic Compounds Sample Summary, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Area ID ⁽¹⁾	Boring ID ⁽²⁾	Interval Sampled (ft bls)	Boring Completion Date
<u>Borings completed per Work Plan</u>			
2	F-2-14	20 - 52	11/6/2014
2	F-7-14	2 - 30	11/3/2014
2	nG-3-14 ⁽³⁾	2 - 22	11/3/2014
2	nJ-6-14 ⁽³⁾	2 - 22	11/3/2014
1	M-7-14	2 - 58	11/3/2014
1	O-5-14	2 - 58	11/7/2014
1	nO-8-14	2 - 30	11/3/2014
1	nQ-10-14	2 - 30	11/3/2014
1	nQ-13-14	2 - 30	11/3/2014
1	L-8-14	2 - 58	11/3/2014
1	L-12-14	2 - 58	11/6/2014
1	N-12-14	2 - 58	11/6/2014
1	P-7-14	2 - 58	11/5/2014
1	P-12-14	2 - 58	11/5/2014
1	Q-8-14	2 - 58	11/5/2014
2	G-8-14	2 - 30	11/6/2014
2	H-7-14	2 - 30	11/5/2014
2	I-2-14	20 - 52	11/6/2014
2	J-4-14	20 - 52	11/7/2014
1	K-10-14	2 - 58	11/7/2014
1	nL-10-14 ⁽³⁾	2 - 30	11/5/2014
1	P-9-14	2 - 58	11/7/2014
2	H-5-14	20 - 52	11/7/2014
1	M-9-14	2 - 58	11/5/2014
<u>Additional Borings completed per Work Plan Addendum</u>			
	B-34-14	0 - 60	11/17/2014
	B-60-14	0 - 30	11/17/2014
	VP-27-14	0 - 60	11/17/2014
	F-4-14	0 - 30	12/15/2014
	F-9-14	0 - 15	12/15/2014
	nK-7-14 ⁽³⁾	30 - 60	12/15/2014
	nQ-13-14R ⁽³⁾⁽⁴⁾	30 - 60	12/16/2014
	nR-10-14 ⁽³⁾	0 - 60	12/16/2014
	nG-2-14 ⁽³⁾	0 - 60	12/18/2014
	nG-6-14 ⁽³⁾	0 - 30	12/17/2014
	F-6-14	0 - 30	12/17/2014
	nL-10-14R ⁽³⁾⁽⁴⁾	30 - 60	12/16/2014
	nM-10-14 ⁽³⁾	0 - 60	12/16/2014
	nM-11-14 ⁽³⁾	0 - 60	12/17/2014
	nN-9-14 ⁽³⁾	0 - 60	12/17/2014
	O-8-14	0 - 60	12/17/2014
	Q-9-14	0 - 60	12/17/2014
	nQ-10-14R ⁽³⁾⁽⁴⁾	30 - 60	12/17/2014
	nZZC-13-14 ⁽³⁾⁽⁵⁾	0 - 10	12/17/2014
<u>TCLP sampling</u>			
	B-34-14	4.5 - 55.5	5/12/2015
	F-6-14	10.5 - 16.5	5/8/2015
	H-7-14	8 - 20	5/12/2015
	H-5-14	46	5/12/2015

Notes and Abbreviations:

- (1) Area ID corresponds to sampling areas defined in the Pre-Design Sampling Work Plan for VOC Source Area (Work Plan) (EMAGIN 2014) and shown on Figure 3.
 - (2) Boring IDs correspond to sampling grid nodes (Figure 3) except for B-34-14, B-60-14, and VP-27-14.
 - (3) "n" in boring ID designates boring is located between grid nodes
 - (4) "R" in boring ID designates redrilling of previous sampled location to collect samples in deeper interval.
 - (5) Boring location in McKay Field access road
- ft bls Feet below original land surface that existed prior to the Town of Oyster Bay bringing in cover material.

Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
<i>Borings completed per Work Plan</i>				
F-2-14	22	F-2-14_22	11/6/2014	
F-2-14	26	F-2-14_26	11/6/2014	
F-2-14	30	F-2-14_30	11/6/2014	
F-2-14	34	F-2-14_34	11/6/2014	X
F-2-14	38	F-2-14_38	11/6/2014	
F-2-14	42	F-2-14_42	11/6/2014	
F-2-14	46	F-2-14_46	11/6/2014	
F-2-14	50	F-2-14_50	11/6/2014	
F-7-14	4	F-7-14_4	11/3/2014	
F-7-14	8	F-7-14_8	11/3/2014	
F-7-14	12	F-7-14_12	11/3/2014	
F-7-14	16	F-7-14_16	11/3/2014	
F-7-14	20	F-7-14_20	11/3/2014	
F-7-14	24	F-7-14_24	11/3/2014	
F-7-14	27	F-7-14_27	11/3/2014	
nG-3-14	4	nG-3-14_4	11/3/2014	
nG-3-14	8	nG-3-14_8	11/3/2014	
nG-3-14	12	nG-3-14_12	11/3/2014	
nG-3-14	16	nG-3-14_16	11/3/2014	
nG-3-14	20	nG-3-14_20	11/3/2014	
nJ-6-14	8	nJ-6-14_4	11/3/2014	
nJ-6-14	8	nJ-6-14_8	11/3/2014	
nJ-6-14	12	nJ-6-14_12	11/3/2014	X
nJ-6-14	16	nJ-6-14_16	11/3/2014	
nJ-6-14	20	nJ-6-14_20	11/3/2014	
M-7-14	8	M-7-14_8	11/3/2014	
M-7-14	12	M-7-14_10	11/3/2014	
M-7-14	19	M-7-14_19	11/3/2014	
M-7-14	22	M-7-14_22	11/3/2014	X
M-7-14	25	M-7-14_25	11/3/2014	
M-7-14	32	M-7-14_32	11/3/2014	
M-7-14	34	M-7-14_34	11/3/2014	
M-7-14	38	M-7-14_38	11/3/2014	
M-7-14	40	M-7-14_40	11/3/2014	
M-7-14	44	M-7-14_44	11/3/2014	
M-7-14	48	M-7-14_48	11/3/2014	
M-7-14	52	M-7-14_52	11/3/2014	X
M-7-14	56	M-7-14_56	11/3/2014	X
O-5-14	4	O-5-14_4	11/7/2014	
O-5-14	8	O-5-14_8	11/7/2014	
O-5-14	12	O-5-14_12	11/7/2014	
O-5-14	16	O-5-14_16	11/7/2014	
O-5-14	20	O-5-14_20	11/7/2014	
O-5-14	24	O-5-14_24	11/7/2014	
O-5-14	28	O-5-14_28	11/7/2014	
O-5-14	32	O-5-14_32	11/7/2014	
O-5-14	36	O-5-14_36	11/7/2014	
O-5-14	40	O-5-14_40	11/7/2014	
O-5-14	44	O-5-14_44	11/7/2014	
O-5-14	48	O-5-14_48	11/7/2014	
O-5-14	52	O-5-14_52	11/7/2014	X

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Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
nO-8-14	4	nO-8-14_4	11/3/2014	
nO-8-14	8	nO-8-14_8	11/3/2014	
nO-8-14	12	nO-8-14_12	11/3/2014	
nO-8-14	16	nO-8-14_16	11/3/2014	
nO-8-14	20	nO-8-14_20	11/3/2014	
nO-8-14	24	nO-8-14_24	11/3/2014	
nO-8-14	28	nO-8-14_28	11/3/2014	
nQ-10-14	4	nQ-10-14_4	11/3/2014	
nQ-10-14	8	nQ-10-14_8	11/3/2014	
nQ-10-14	12	nQ-10-14_12	11/3/2014	
nQ-10-14	16	nQ-10-14_16	11/3/2014	
nQ-10-14	20	nQ-10-14_20	11/3/2014	
nQ-10-14	24	nQ-10-14_24	11/3/2014	
nQ-10-14	28	nQ-10-14_28	11/3/2014	
nQ-13-14	4	nQ-13-14_4	11/3/2014	X
nQ-13-14	8	nQ-13-14_8	11/3/2014	
nQ-13-14	12	nQ-13-14_12	11/3/2014	
nQ-13-14	16	nQ-13-14_16	11/3/2014	
nQ-13-14	20	nQ-13-14_20	11/3/2014	
nQ-13-14	24	nQ-13-14_24	11/3/2014	
nQ-13-14	28	nQ-13-14_28	11/3/2014	
L-8-14	4	L-8-14_4	11/3/2014	
L-8-14	8	L-8-14_8	11/3/2014	X
L-8-14	12	L-8-14_12	11/3/2014	
L-8-14	16	L-8-14_16	11/3/2014	
L-8-14	20	L-8-14_20	11/3/2014	
L-8-14	24	L-8-14_24	11/3/2014	
L-8-14	28	L-8-14_28	11/3/2014	
L-8-14	32	L-8-14_32	11/3/2014	
L-8-14	36	L-8-14_36	11/3/2014	
L-8-14	40	L-8-14_41	11/3/2014	
L-8-14	44	L-8-14_44	11/3/2014	X
L-8-14	48	L-8-14_48	11/3/2014	X
L-8-14	52	L-8-14_55	11/3/2014	X
L-8-14	56	L-8-14_56	11/3/2014	X
L-12-14	4	L-12-14_4	11/6/2014	
L-12-14	8	L-12-14_8	11/6/2014	
L-12-14	12	L-12-14_12	11/6/2014	
L-12-14	16	L-12-14_16	11/6/2014	
L-12-14	20	L-12-14_20	11/6/2014	
L-12-14	24	L-12-14_24	11/6/2014	
L-12-14	28	L-12-14_28	11/6/2014	
L-12-14	32	L-12-14_32	11/6/2014	
L-12-14	36	L-12-14_36	11/6/2014	
L-12-14	40	L-12-14_40	11/6/2014	
L-12-14	42	L-12-14_42	11/6/2014	
L-12-14	44	L-12-14_44	11/6/2014	X
L-12-14	45	L-12-14_45	11/6/2014	
L-12-14	48	L-12-14_48	11/6/2014	
L-12-14	52	L-12-14_52	11/6/2014	
L-12-14	56	L-12-14_56	11/6/2014	

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Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
N-12-14	4	N-12-14_4	11/6/2014	
N-12-14	8	N-12-14_8	11/6/2014	
N-12-14	12	N-12-14_12	11/6/2014	
N-12-14	16	N-12-14_16	11/6/2014	
N-12-14	20	N-12-14_20	11/6/2014	
N-12-14	24	N-12-14_24	11/6/2014	
N-12-14	28	N-12-14_28	11/6/2014	
N-12-14	32	N-12-14_32	11/6/2014	
N-12-14	36	N-12-14_36	11/6/2014	
N-12-14	40	N-12-14_40	11/6/2014	
N-12-14	44	N-12-14_44	11/6/2014	
N-12-14	48	N-12-14_48	11/6/2014	X
N-12-14	52	N-12-14_52	11/6/2014	
N-12-14	56	N-12-14_56	11/6/2014	
N-12-14	58	N-12-14_58	11/6/2014	
P-7-14	4	P-7-14_4	11/5/2014	
P-7-14	8	P-7-14_8	11/5/2014	
P-7-14	12	P-7-14_12	11/5/2014	
P-7-14	16	P-7-14_16	11/5/2014	
P-7-14	20	P-7-14_20	11/5/2014	
P-7-14	24	P-7-14_24	11/5/2014	
P-7-14	28	P-7-14_28	11/5/2014	
P-7-14	32	P-7-14_32	11/5/2014	
P-7-14	36	P-7-14_36	11/5/2014	
P-7-14	40	P-7-14_40	11/5/2014	
P-7-14	44	P-7-14_44	11/5/2014	
P-7-14	48	P-7-14_48	11/5/2014	
P-7-14	52	P-7-14_52	11/5/2014	
P-7-14	56	P-7-14_56	11/5/2014	X
P-12-14	4	P-12-14_4	11/5/2014	
P-12-14	7	P-12-14_7	11/5/2014	
P-12-14	12	P-12-14_12	11/5/2014	
P-12-14	16	P-12-14_16	11/5/2014	
P-12-14	20	P-12-14_20	11/5/2014	
P-12-14	24	P-12-14_24	11/5/2014	
P-12-14	28	P-12-14_28	11/5/2014	
P-12-14	32	P-12-14_32	11/5/2014	
P-12-14	36	P-12-14_36	11/5/2014	X
P-12-14	40	P-12-14_40	11/5/2014	
P-12-14	44	P-12-14_44	11/5/2014	X
P-12-14	48	P-12-14_48	11/5/2014	
P-12-14	51	P-12-14_51	11/5/2014	
P-12-14	53	P-12-14_53	11/5/2014	X
P-12-14	55	P-12-14_55	11/5/2014	
Q-8-14	4	Q-8-14_4	11/5/2014	
Q-8-14	8	Q-8-14_8	11/5/2014	
Q-8-14	16	Q-8-14_16	11/5/2014	
Q-8-14	20	Q-8-14_20	11/5/2014	
Q-8-14	24	Q-8-14_24	11/5/2014	X
Q-8-14	28	Q-8-14_28	11/5/2014	
Q-8-14	32	Q-8-14_32	11/5/2014	
Q-8-14	36	Q-8-14_36	11/5/2014	
Q-8-14	40	Q-8-14_40	11/5/2014	
Q-8-14	44	Q-8-14_44	11/5/2014	X
Q-8-14	48	Q-8-14_48	11/5/2014	
Q-8-14	52	Q-8-14_52	11/5/2014	

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Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
G-8-14	4	G-8-14_4	11/6/2014	
G-8-14	8	G-8-14_8	11/6/2014	
G-8-14	12	G-8-14_12	11/6/2014	
G-8-14	16	G-8-14_16	11/6/2014	
G-8-14	20	G-8-14_20	11/6/2014	
G-8-14	24	G-8-14_24	11/6/2014	
G-8-14	28	G-8-14_28	11/6/2014	X
H-7-14	4	H-7-14_4	11/3/2014	
H-7-14	8	H-7-14_8	11/3/2014	
H-7-14	12	H-7-14_12	11/3/2014	X
H-7-14	16	H-7-14_16	11/3/2014	
H-7-14	20	H-7-14_20	11/3/2014	
H-7-14	24	H-7-14_22	11/3/2014	
H-7-14	28	H-7-14_28	11/3/2014	
I-2-14	22	I-2-14_22	11/6/2014	
I-2-14	26	I-2-14_26	11/6/2014	
I-2-14	30	I-2-14_30	11/6/2014	
I-2-14	34	I-2-14_34	11/6/2014	
I-2-14	38	I-2-14_38	11/6/2014	
I-2-14	42	I-2-14_42	11/6/2014	
I-2-14	46	I-2-14_46	11/6/2014	X
I-2-14	50	I-2-14_50	11/6/2014	X
J-4-14	22	J-4-14_22	11/7/2014	
J-4-14	26	J-4-14_26	11/7/2014	
J-4-14	30	J-4-14_30	11/7/2014	
J-4-14	34	J-4-14_34	11/7/2014	
J-4-14	38	J-4-14_38	11/7/2014	
J-4-14	42	J-4-14_42	11/7/2014	
J-4-14	46	J-4-14_46	11/7/2014	X
J-4-14	50	J-4-14_50	11/7/2014	X
K-10-14	4	K-10-14_4	11/7/2014	
K-10-14	8	K-10-14_8	11/7/2014	
K-10-14	12	K-10-14_12	11/7/2014	
K-10-14	16	K-10-14_16	11/7/2014	
K-10-14	20	K-10-14_20	11/7/2014	
K-10-14	24	K-10-14_24	11/7/2014	
K-10-14	28	K-10-14_28	11/7/2014	
K-10-14	32	K-10-14_32	11/7/2014	
K-10-14	36	K-10-14_36	11/7/2014	
K-10-14	40	K-10-14_40	11/7/2014	
K-10-14	44	K-10-14_44	11/7/2014	
K-10-14	48	K-10-14_48	11/7/2014	
K-10-14	52	K-10-14_52	11/7/2014	X
nL-10-14	4	nL-10-14_4	11/3/2014	
nL-10-14	8	nL-10-14_8	11/3/2014	
nL-10-14	12	nL-10-14_12	11/3/2014	X
nL-10-14	16	nL-10-14_16	11/3/2014	
nL-10-14	20	nL-10-14_20	11/3/2014	
nL-10-14	24	nL-10-14_24	11/3/2014	
nL-10-14	28	nL-10-14_28	11/3/2014	

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Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
P-9-14	4	P-9-14_4	11/6/2014	
P-9-14	8	P-9-14_8	11/6/2014	
P-9-14	12	P-9-14_12	11/6/2014	
P-9-14	14	P-9-14_14	11/6/2014	
P-9-14	16	P-9-14_16	11/6/2014	X
P-9-14	20	P-9-14_20	11/6/2014	X
P-9-14	24	P-9-14_24	11/6/2014	
P-9-14	28	P-9-14_28	11/6/2014	
P-9-14	32	P-9-14_32	11/6/2014	X
P-9-14	36	P-9-14_36	11/7/2014	
P-9-14	38	P-9-14_38	11/7/2014	
P-9-14	40	P-9-14_40	11/7/2014	
P-9-14	44	P-9-14_44	11/7/2014	X
P-9-14	45	P-9-14_45	11/7/2014	
P-9-14	48	P-9-14_48	11/7/2014	
P-9-14	50	P-9-14_50	11/7/2014	
P-9-14	52	P-9-14_52	11/7/2014	
H-5-14	22	H-5-14_22	11/7/2014	
H-5-14	26	H-5-14_26	11/7/2014	
H-5-14	30	H-5-14_30	11/7/2014	
H-5-14	34	H-5-14_34	11/7/2014	
H-5-14	38	H-5-14_38	11/7/2014	
H-5-14	42	H-5-14_42	11/7/2014	
H-5-14	46	H-5-14_46	11/7/2014	X
H-5-14	50	H-5-14_50	11/7/2014	X
M-9-14	4	M-9-14_4	11/5/2014	
M-9-14	8	M-9-14_8	11/5/2014	
M-9-14	9	M-9-14_9	11/5/2014	
M-9-14	12	M-9-14_12	11/5/2014	
M-9-14	16	M-9-14_16	11/5/2014	
M-9-14	20	M-9-14_20	11/5/2014	
M-9-14	24	M-9-14_24	11/5/2014	X
M-9-14	28	M-9-14_28	11/5/2014	
M-9-14	31	M-9-14_31	11/5/2014	
M-9-14	34	M-9-14_34	11/5/2014	
M-9-14	36	M-9-14_36	11/5/2014	
M-9-14	40	M-9-14_40	11/5/2014	
M-9-14	43	M-9-14_43	11/5/2014	
M-9-14	45	M-9-14_45	11/5/2014	
M-9-14	46	M-9-14_46	11/5/2014	X
M-9-14	49	M-9-14_49	11/5/2014	
M-9-14	51	M-9-14_51	11/5/2014	
M-9-14	54	M-9-14_54	11/5/2014	
M-9-14	57	M-9-14_57	11/5/2014	X

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Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
<i>Additional Borings completed per Work Plan Addendum</i>				
B-34-14	1.5	B-34-14_1.5	11/17/2014	X
B-34-14	4.5	B-34-14_4.5	11/17/2014	X
B-34-14	7.5	B-34-14_7.5	11/17/2014	X
B-34-14	10.5	B-34-14_10.5	11/17/2014	X
B-34-14	13.5	B-34-14_13.5	11/17/2014	X
B-34-14	16.5	B-34-14_16.5	11/17/2014	X
B-34-14	19.5	B-34-14_19.5	11/17/2014	X
B-34-14	22.5	B-34-14_22.5	11/17/2014	X
B-34-14	25.5	B-34-14_25.5	11/17/2014	X
B-34-14	28.5	B-34-14_28.5	11/17/2014	X
B-34-14	31.5	B-34-14_31.5	11/17/2014	X
B-34-14	34.5	B-34-14_34.5	11/17/2014	X
B-34-14	37.5	B-34-14_37.5	11/17/2014	X
B-34-14	40.5	B-34-14_40.5	11/17/2014	X
B-34-14	43.5	B-34-14_43.5	11/17/2014	X
B-34-14	46.5	B-34-14_46.5	11/17/2014	X
B-34-14	49.5	B-34-14_49.5	11/17/2014	X
B-34-14	52.5	B-34-14_52.5	11/17/2014	X
B-34-14	55.5	B-34-14_55.5	11/17/2014	X
B-34-14	58.5	B-34-14_58.5	11/17/2014	X
<hr/>				
B-60-14	1.5	B-60-14_1.5	11/17/2014	X
B-60-14	4.5	B-60-14_4.5	11/17/2014	X
B-60-14	7.5	B-60-14_7.5	11/17/2014	X
B-60-14	10.5	B-60-14_10.5	11/17/2014	X
B-60-14	13.5	B-60-14_13.5	11/17/2014	X
B-60-14	16.5	B-60-14_16.5	11/17/2014	X
B-60-14	19.5	B-60-14_19.5	11/17/2014	X
B-60-14	22.5	B-60-14_22.5	11/17/2014	X
B-60-14	25.5	B-60-14_25.5	11/17/2014	X
B-60-14	28.5	B-60-14_28.5	11/17/2014	X
<hr/>				
VP-27-14	1.5	VP-27-14_1.5	11/17/2014	X
VP-27-14	4.5	VP-27-14_4.5	11/17/2014	X
VP-27-14	7.5	VP-27-14_7.5	11/17/2014	X
VP-27-14	10.5	VP-27-14_10.5	11/17/2014	X
VP-27-14	13.5	VP-27-14_13.5	11/17/2014	X
VP-27-14	16.5	VP-27-14_16.5	11/17/2014	X
VP-27-14	19.5	VP-27-14_19.5	11/17/2014	X
VP-27-14	22.5	VP-27-14_22.5	11/17/2014	X
VP-27-14	25.5	VP-27-14_25.5	11/17/2014	X
VP-27-14	28.5	VP-27-14_28.5	11/17/2014	X
VP-27-14	31.5	VP-27-14_31.5	11/17/2014	X
VP-27-14	34.5	VP-27-14_34.5	11/17/2014	X
VP-27-14	37.5	VP-27-14_37.5	11/17/2014	X
VP-27-14	40.5	VP-27-14_40.5	11/17/2014	X
VP-27-14	43.5	VP-27-14_43.5	11/17/2014	X
VP-27-14	46.5	VP-27-14_46.5	11/17/2014	X
VP-27-14	49.5	VP-27-14_49.5	11/17/2014	X
VP-27-14	52.5	VP-27-14_52.5	11/17/2014	X
VP-27-14	55.5	VP-27-14_55.5	11/17/2014	X
VP-27-14	58.5	VP-27-14_58.5	11/17/2014	X

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Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
F-4-14	1.5	F-4-14_1.5	12/15/2014	
F-4-14	4.5	F-4-14_4.5	12/15/2014	
F-4-14	7.5	F-4-14_7.5	12/15/2014	
F-4-14	10.5	F-4-14_10.5	12/15/2014	
F-4-14	13.5	F-4-14_13.5	12/15/2014	
F-4-14	16.5	F-4-14_16.5	12/15/2014	
F-4-14	19.5	F-4-14_19.5	12/15/2014	
F-4-14	22.5	F-4-14_22.5	12/15/2014	
F-4-14	25.5	F-4-14_25.5	12/15/2014	
F-4-14	28.5	F-4-14_28.5	12/15/2014	
F-9-14	1.5	F-9-14_1.5	12/15/2014	
F-9-14	4.5	F-9-14_4.5	12/15/2014	
F-9-14	7.5	F-9-14_7.5	12/15/2014	
F-9-14	10.5	F-9-14_10.5	12/15/2014	
F-9-14	13.5	F-9-14_13.5	12/15/2014	
nK-7-14	31.5	nK-7-14_31.5	12/15/2014	
nK-7-14	34.5	nK-7-14_34.5	12/15/2014	
nK-7-14	37.5	nK-7-14_37.5	12/15/2014	
nK-7-14	40.5	nK-7-14_40.5	12/15/2014	
nK-7-14	43.5	nK-7-14_43.5	12/15/2014	
nK-7-14	46.5	nK-7-14_46.5	12/15/2014	
nK-7-14	49.5	nK-7-14_49.5	12/15/2014	
nK-7-14	52.5	nK-7-14_52.5	12/15/2014	
nK-7-14	55.5	nK-7-14_55.5	12/15/2014	
nK-7-14	58.5	nK-7-14_58.5	12/15/2014	
nQ-13-14R	31.5	nQ-13-14R_31.5	12/16/2014	
nQ-13-14R	34.5	nQ-13-14R_34.5	12/16/2014	
nQ-13-14R	37.5	nQ-13-14R_37.5	12/16/2014	
nQ-13-14R	40.5	nQ-13-14R_40.5	12/16/2014	
nQ-13-14R	43.5	nQ-13-14R_43.5	12/16/2014	
nQ-13-14R	46.5	nQ-13-14R_46.5	12/16/2014	
nQ-13-14R	49.5	nQ-13-14R_49.5	12/16/2014	
nQ-13-14R	52.5	nQ-13-14R_52.5	12/16/2014	
nQ-13-14R	55.5	nQ-13-14R_55.5	12/16/2014	
nQ-13-14R	58.5	nQ-13-14R_58.5	12/16/2014	
nR-10-14	1.5	nR-10-14_1.5	12/16/2014	
nR-10-14	4.5	nR-10-14_4.5	12/16/2014	
nR-10-14	7.5	nR-10-14_7.5	12/16/2014	
nR-10-14	10.5	nR-10-14_10.5	12/16/2014	
nR-10-14	13.5	nR-10-14_13.5	12/16/2014	
nR-10-14	16.5	nR-10-14_16.5	12/16/2014	
nR-10-14	19.5	nR-10-14_19.5	12/16/2014	
nR-10-14	22.5	nR-10-14_22.5	12/16/2014	
nR-10-14	25.5	nR-10-14_25.5	12/16/2014	
nR-10-14	28.5	nR-10-14_28.5	12/16/2014	
nR-10-14	31.5	nR-10-14_31.5	12/16/2014	
nR-10-14	34.5	nR-10-14_34.5	12/16/2014	
nR-10-14	37.5	nR-10-14_37.5	12/16/2014	
nR-10-14	40.5	nR-10-14_40.5	12/16/2014	
nR-10-14	43.5	nR-10-14_43.5	12/16/2014	
nR-10-14	46.5	nR-10-14_46.5	12/16/2014	
nR-10-14	49.5	nR-10-14_49.5	12/16/2014	
nR-10-14	52.5	nR-10-14_52.5	12/16/2014	
nR-10-14	55.5	nR-10-14_55.5	12/16/2014	
nR-10-14	58.5	nR-10-14_58.5	12/16/2014	

Notes and Abbreviations on last page.

Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
nG-2-14	1.5	nG-2-14_1.5	12/17/2014	
nG-2-14	4.5	nG-2-14_4.5	12/17/2014	
nG-2-14	7.5	nG-2-14_7.5	12/17/2014	
nG-2-14	10.5	nG-2-14_10.5	12/17/2014	
nG-2-14	13.5	nG-2-14_13.5	12/17/2014	
nG-2-14	16.5	nG-2-14_16.5	12/17/2014	
nG-2-14	19.5	nG-2-14_19.5	12/17/2014	
nG-2-14	22.5	nG-2-14_22.5	12/17/2014	
nG-2-14	25.5	nG-2-14_25.5	12/17/2014	
nG-2-14	28.5	nG-2-14_28.5	12/17/2014	
nG-2-14	31.5	nG-2-14_31.5	12/18/2014	
nG-2-14	34.5	nG-2-14_34.5	12/18/2014	
nG-2-14	37.5	nG-2-14_37.5	12/18/2014	
nG-2-14	40.5	nG-2-14_40.5	12/18/2014	
nG-2-14	43.5	nG-2-14_43.5	12/18/2014	
nG-2-14	46.5	nG-2-14_46.5	12/18/2014	
nG-2-14	49.5	nG-2-14_49.5	12/18/2014	
nG-2-14	52.5	nG-2-14_52.5	12/18/2014	
nG-2-14	55.5	nG-2-14_55.5	12/18/2014	
nG-2-14	58.5	nG-2-14_58.5	12/18/2014	
nG-6-14	1.5	nG-6-14_1.5	12/17/2014	
nG-6-14	4.5	nG-6-14_4.5	12/17/2014	
nG-6-14	7.5	nG-6-14_7.5	12/17/2014	
nG-6-14	10.5	nG-6-14_10.5	12/17/2014	
nG-6-14	13.5	nG-6-14_13.5	12/17/2014	
nG-6-14	16.5	nG-6-14_16.5	12/17/2014	
nG-6-14	19.5	nG-6-14_19.5	12/17/2014	
nG-6-14	22.5	nG-6-14_22.5	12/17/2014	
nG-6-14	25.5	nG-6-14_25.5	12/17/2014	
nG-6-14	28.5	nG-6-14_28.5	12/17/2014	
F-6-14	1.5	F-6-14_1.5	12/17/2014	
F-6-14	4.5	F-6-14_4.5	12/17/2014	
F-6-14	7.5	F-6-14_7.5	12/17/2014	
F-6-14	10.5	F-6-14_10.5	12/17/2014	
F-6-14	13.5	F-6-14_13.5	12/17/2014	
F-6-14	16.5	F-6-14_16.5	12/17/2014	
F-6-14	19.5	F-6-14_19.5	12/17/2014	
F-6-14	22.5	F-6-14_22.5	12/17/2014	
F-6-14	25.5	F-6-14_25.5	12/17/2014	
F-6-14	28.5	F-6-14_28.5	12/17/2014	
nL-10-14R	31.5	nL-10-14R_31.5	12/16/2014	
nL-10-14R	34.5	nL-10-14R_34.5	12/16/2014	
nL-10-14R	37.5	nL-10-14R_37.5	12/16/2014	
nL-10-14R	40.5	nL-10-14R_40.5	12/16/2014	
nL-10-14R	43.5	nL-10-14R_43.5	12/16/2014	
nL-10-14R	46.5	nL-10-14R_46.5	12/16/2014	
nL-10-14R	49.5	nL-10-14R_49.5	12/16/2014	
nL-10-14R	52.5	nL-10-14R_52.5	12/16/2014	
nL-10-14R	55.5	nL-10-14R_55.5	12/16/2014	
nL-10-14R	58.5	nL-10-14R_58.5	12/16/2014	

Notes and Abbreviations on last page.

Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
nM-10-14	1.5	nM-10-14_1.5	12/16/2014	
nM-10-14	4.5	nM-10-14_4.5	12/16/2014	
nM-10-14	7.5	nM-10-14_7.5	12/16/2014	
nM-10-14	10.5	nM-10-14_10.5	12/16/2014	
nM-10-14	13.5	nM-10-14_13.5	12/16/2014	
nM-10-14	16.5	nM-10-14_16.5	12/16/2014	
nM-10-14	19.5	nM-10-14_19.5	12/16/2014	
nM-10-14	22.5	nM-10-14_22.5	12/16/2014	
nM-10-14	25.5	nM-10-14_25.5	12/16/2014	
nM-10-14	28.5	nM-10-14_28.5	12/16/2014	
nM-10-14	31.5	nM-10-14_31.5	12/16/2014	
nM-10-14	34.5	nM-10-14_34.5	12/16/2014	
nM-10-14	37.5	nM-10-14_37.5	12/16/2014	
nM-10-14	40.5	nM-10-14_40.5	12/16/2014	
nM-10-14	43.5	nM-10-14_43.5	12/16/2014	
nM-10-14	46.5	nM-10-14_46.5	12/16/2014	
nM-10-14	49.5	nM-10-14_49.5	12/16/2014	
nM-10-14	52.5	nM-10-14_52.5	12/16/2014	
nM-10-14	55.5	nM-10-14_55.5	12/16/2014	
nM-10-14	58.5	nM-10-14_58.5	12/16/2014	
nM-11-14	1.5	nM-11-14_1.5	12/17/2014	
nM-11-14	4.5	nM-11-14_4.5	12/17/2014	
nM-11-14	7.5	nM-11-14_7.5	12/17/2014	
nM-11-14	10.5	nM-11-14_10.5	12/17/2014	
nM-11-14	13.5	nM-11-14_13.5	12/17/2014	
nM-11-14	16.5	nM-11-14_16.5	12/17/2014	
nM-11-14	19.5	nM-11-14_19.5	12/17/2014	
nM-11-14	22.5	nM-11-14_22.5	12/17/2014	
nM-11-14	25.5	nM-11-14_25.5	12/17/2014	
nM-11-14	28.5	nM-11-14_28.5	12/17/2014	
nM-11-14	31.5	nM-11-14_31.5	12/17/2014	
nM-11-14	34.5	nM-11-14_34.5	12/17/2014	
nM-11-14	37.5	nM-11-14_37.5	12/17/2014	
nM-11-14	40.5	nM-11-14_40.5	12/17/2014	
nM-11-14	43.5	nM-11-14_43.5	12/17/2014	
nM-11-14	46.5	nM-11-14_46.5	12/17/2014	
nM-11-14	49.5	nM-11-14_49.5	12/17/2014	
nM-11-14	52.5	nM-11-14_52.5	12/17/2014	
nM-11-14	55.5	nM-11-14_55.5	12/17/2014	
nM-11-14	58.5	nM-11-14_58.5	12/17/2014	
nN-9-14	1.5	nN-9-14_1.5	12/17/2014	X
nN-9-14	4.5	nN-9-14_4.5	12/17/2014	X
nN-9-14	7.5	nN-9-14_7.5	12/17/2014	X
nN-9-14	10.5	nN-9-14_10.5	12/17/2014	X
nN-9-14	13.5	nN-9-14_13.5	12/17/2014	X
nN-9-14	16.5	nN-9-14_16.5	12/17/2014	X
nN-9-14	19.5	nN-9-14_19.5	12/17/2014	X
nN-9-14	22.5	nN-9-14_22.5	12/17/2014	X
nN-9-14	25.5	nN-9-14_25.5	12/17/2014	X
nN-9-14	28.5	nN-9-14_28.5	12/17/2014	X
nN-9-14	31.5	nN-9-14_31.5	12/17/2014	X
nN-9-14	40.5	nN-9-14_40.5	12/17/2014	X
nN-9-14	43.5	nN-9-14_43.5	12/17/2014	X
nN-9-14	46.5	nN-9-14_46.5	12/17/2014	X
nN-9-14	49.5	nN-9-14_49.5	12/17/2014	X
nN-9-14	52.5	nN-9-14_52.5	12/17/2014	X
nN-9-14	55.5	nN-9-14_55.5	12/17/2014	X
nN-9-14	58.5	nN-9-14_58.5	12/17/2014	X

Notes and Abbreviations on last page.

Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
O-8-14	1.5	O-8-14_1.5	12/17/2014	X
O-8-14	4.5	O-8-14_4.5	12/17/2014	X
O-8-14	7.5	O-8-14_7.5	12/17/2014	
O-8-14	10.5	O-8-14_10.5	12/17/2014	
O-8-14	13.5	O-8-14_13.5	12/17/2014	
O-8-14	16.5	O-8-14_16.5	12/17/2014	
O-8-14	19.5	O-8-14_19.5	12/17/2014	
O-8-14	22.5	O-8-14_22.5	12/17/2014	
O-8-14	25.5	O-8-14_25.5	12/17/2014	
O-8-14	28.5	O-8-14_28.5	12/17/2014	
O-8-14	31.5	O-8-14_31.5	12/17/2014	
O-8-14	34.5	O-8-14_34.5	12/17/2014	
O-8-14	37.5	O-8-14_37.5	12/17/2014	
O-8-14	40.5	O-8-14_40.5	12/17/2014	
O-8-14	43.5	O-8-14_43.5	12/17/2014	
O-8-14	46.5	O-8-14_46.5	12/17/2014	
O-8-14	49.5	O-8-14_49.5	12/17/2014	
O-8-14	52.5	O-8-14_52.5	12/17/2014	
O-8-14	55.5	O-8-14_55.5	12/17/2014	
O-8-14	58.5	O-8-14_58.5	12/17/2014	
Q-9-14	1.5	Q-9-14_1.5	12/17/2014	
Q-9-14	4.5	Q-9-14_4.5	12/17/2014	
Q-9-14	7.5	Q-9-14_7.5	12/17/2014	
Q-9-14	10.5	Q-9-14_10.5	12/17/2014	
Q-9-14	13.5	Q-9-14_13.5	12/17/2014	
Q-9-14	16.5	Q-9-14_16.5	12/17/2014	
Q-9-14	19.5	Q-9-14_19.5	12/17/2014	
Q-9-14	22.5	Q-9-14_22.5	12/17/2014	
Q-9-14	25.5	Q-9-14_25.5	12/17/2014	
Q-9-14	28.5	Q-9-14_28.5	12/17/2014	
Q-9-14	31.5	Q-9-14_31.5	12/17/2014	
Q-9-14	34.5	Q-9-14_34.5	12/17/2014	
Q-9-14	37.5	Q-9-14_37.5	12/17/2014	
Q-9-14	40.5	Q-9-14_40.5	12/17/2014	
Q-9-14	43.5	Q-9-14_43.5	12/17/2014	
Q-9-14	46.5	Q-9-14_46.5	12/17/2014	
Q-9-14	49.5	Q-9-14_49.5	12/17/2014	
Q-9-14	52.5	Q-9-14_52.5	12/17/2014	
Q-9-14	55.5	Q-9-14_55.5	12/17/2014	
Q-9-14	58.5	Q-9-14_58.5	12/17/2014	
nQ-10-14R	31.5	nQ-10-14R_31.5	12/17/2014	X
nQ-10-14R	34.5	nQ-10-14R_34.5	12/17/2014	X
nQ-10-14R	37.5	nQ-10-14R_37.5	12/17/2014	X
nQ-10-14R	40.5	nQ-10-14R_40.5	12/17/2014	X
nQ-10-14R	43.5	nQ-10-14R_43.5	12/17/2014	X
nQ-10-14R	46.5	nQ-10-14R_46.5	12/17/2014	X
nQ-10-14R	49.5	nQ-10-14R_49.5	12/17/2014	X
nQ-10-14R	52.5	nQ-10-14R_52.5	12/17/2014	X
nQ-10-14R	55.5	nQ-10-14R_55.5	12/17/2014	X
nQ-10-14R	58.5	nQ-10-14R_58.5	12/17/2014	X
nZCC-13-14 ⁽³⁾	1.5	nZCC-13-14_1.5	12/17/2014	
nZCC-13-14 ⁽³⁾	4.5	nZCC-13-14_4.5	12/17/2014	
nZCC-13-14 ⁽³⁾	7.5	nZCC-13-14_7.5	12/17/2014	

Notes and Abbreviations on last page.

Table 2. Volatile Organic Compounds Sample Details, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID	Sample Midpoint Depth (ft bls)	Sample ID	Date Sampled	VOC Fixed Base Lab Analysis ⁽²⁾
<i>TCLP sampling</i> ⁽⁴⁾				
B-34-14	4.5	B-34-14 (4.5)	5/12/2015	X
B-34-14	7.5	B-34-14 (7.5)	5/12/2015	X
B-34-14	13.5	B-34-14 (13.5)	5/12/2015	X
B-34-14	34.5	B-34-14 (34.5)	5/12/2015	X
B-34-14	43.5	B-34-14 (43.5)	5/12/2015	X
B-34-14	46.5	B-34-14 (46.5)	5/12/2015	X
B-34-14	49.5	B-34-14 (49.5)	5/12/2015	X
B-34-14	52.5	B-34-14 (52.5)	5/12/2015	X
B-34-14	55.5	B-34-14 (55.5)	5/12/2015	X
F-6-14	10.5	F-6-14 (10.5)	5/8/2015	X
F-6-14	16.5	F-6-14 (16.5)	5/8/2015	X
H-7-14	8	H-7-14 (8)	5/12/2015	X
H-7-14	16	H-7-14 (16)	5/12/2015	X
H-7-14	20	H-7-14 (20)	5/12/2015	X
H-5-15	46	H-5-15 (46)	5/12/2015	X

Notes and Abbreviations:

Samples were collected every 4 feet per the Pre-Design Sampling Work Plan for VOC Source Area (Work Plan) (EMAGIN 2014) Additional samples collected per Work Plan Addendum (ARCADIS 2014) were collected every 3 feet.

- (1) Samples submitted to mobile laboratory were analyzed for the TCL VOCs using Direct Sampling Ion Trap Mass
 - (2) Samples submitted to fixed based laboratory were analyzed for the TCL VOCs using USEPA Method 8260C.
 - (3) Boring location in McKay Field access road
 - (4) Samples analyzed for TCLP VOCs (sample interval 0.5 feet)
- USEPA United States Environmental Protection Agency
 TCL Target compound list
 VOC Volatile organic compound
 ft bls Feet below original land surface that existed prior to the Town of Oyster Bay bringing in cover material.
 TCLP Toxicity Characteristic Leaching Procedure

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: F-2-14	F-2-14	F-2-14	F-2-14	F-2-14	F-2-14	F-2-14	F-2-14	F-2-14	F-7-14	F-7-14
Sample Midpoint Depth (ft):	22	26	30	34	38	42	46	50	50	4	8
Date Sampled:	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/3/2014	11/3/2014
Sample ID:	F-2-14_22	F-2-14_26	F-2-14_30	F-2-14_34	F-2-14_38	F-2-14_42	F-2-14_46	F-2-14_50	F-2-14_50	F-7-14_4	F-7-14_8
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<0.21
Trichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<0.21
Dichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<0.21
Vinyl chloride+1,2-Dichloroethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<0.21
Benzene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<0.21
Toluene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<0.21
Ethylbenzene+Xylenes	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<0.21
TVOCs	0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: F-7-14	F-7-14	F-7-14	F-7-14	F-7-14	nG-3-14	nG-3-14	nG-3-14	nG-3-14	nG-3-14
Sample Midpoint Depth (ft):	12	16	20	25	27	4	8	12	16	20
Date Sampled:	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014
Sample ID:	F-7-14_12	F-7-14_16	F-7-14_20	F-7-14_24	F-7-14_27	nG-3-14_4	nG-3-14_8	nG-3-14_12	nG-3-14_16	nG-3-14_20
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Trichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Dichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Vinyl chloride+1,2-Dichloroethane	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Benzene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Toluene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Ethylbenzene+Xylenes	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
TVOCs	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nJ-6-14	nJ-6-14	nJ-6-14	nJ-6-14	nJ-6-14	M-7-14	M-7-14	M-7-14	M-7-14	M-7-14
Sample Midpoint Depth (ft):	4	8	12	16	20	19	22	25	32	34
Date Sampled:	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014
Sample ID:	nJ-6-14_4	nJ-6-14_8	nJ-6-14_12	nJ-6-14_16	nJ-6-14_20	M-7-14_19	M-7-14_22	M-7-14_25	M-7-14_32	M-7-14_34
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Trichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Dichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Vinyl chloride+1,2-Dichloroethane	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Benzene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Toluene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Ethylbenzene+Xylenes	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
TVOCs	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: M-7-14	M-7-14	M-7-14	M-7-14	M-7-14	M-7-14	M-7-14	M-7-14	O-5-14	O-5-14	O-5-14
Sample Midpoint Depth (ft):	38	38	40	44	48	52	56		4	8	12
Date Sampled:	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/7/2014	11/7/2014	11/7/2014
Sample ID:	M-7-14_38	M-7-14_38 V2	M-7-14_40	M-7-14_44	M-7-14_48	M-7-14_52	M-7-14_56		O-5-14_4	O-5-14_8	O-5-14_12
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.20	<0.20	<0.20
Trichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.70	1.11	<0.20	<0.20	<0.20
Dichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.96	0.64	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.20	<0.20	<0.20
Benzene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.20	<0.20	<0.20
Toluene	<0.21	<0.21	<0.21	57.17	1.70	0.75	<0.21	<0.21	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.20	<0.20	<0.20
TVOCs	0	0	0	57	1.7	2.4	1.8		0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: O-5-14	O-5-14	O-5-14	O-5-14	O-5-14	O-5-14	O-5-14	O-5-14	O-5-14	O-5-14	O-5-14
Sample Midpoint Depth (ft):	16	20	24	28	32	36	40	44	48	52	
Date Sampled:	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014
Sample ID:	O-5-14_16	O-5-14_20	O-5-14_24	O-5-14_28	O-5-14_32	O-5-14_36	O-5-14_40	O-5-14_44	O-5-14_48	O-5-14_52	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nO-8-14	nO-8-14	nO-8-14	nO-8-14	nO-8-14	nO-8-14	nO-8-14	nO-8-14	nQ-10-14	nQ-10-14	nQ-10-14
Sample Midpoint Depth (ft):	4	8	12	16	20	24	28	4	8	12	
Date Sampled:	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	
Sample ID:	nO-8-14_4	nO-8-14_8	nO-8-14_12	nO-8-14_16	nO-8-14_20	nO-8-14_24	nO-8-14_28	nQ-10-14_4	nQ-10-14_8	nQ-10-14_12	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Trichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Dichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Vinyl chloride+1,2-Dichloroethane	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Benzene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Toluene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Ethylbenzene+Xylenes	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
TVOCs	0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nQ-10-14	nQ-10-14	nQ-10-14	nQ-10-14	nQ-13-14	nQ-13-14	nQ-13-14	nQ-13-14	nQ-13-14
Sample Midpoint Depth (ft):	16	20	24	28	4	8	12	16	20
Date Sampled:	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014
Sample ID:	nQ-10-14_16	nQ-10-14_20	nQ-10-14_24	nQ-10_14-28	nQ-13-14_4	nQ-13-14_8	nQ-13-14_12	nQ-13-14_16	nQ-13-14_20
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Trichloroethene	<0.21	<0.21	<0.21	<0.21	1.68	<0.21	<0.21	<0.21	<0.21
Dichloroethene	<0.21	<0.21	<0.21	<0.21	0.29	<0.21	<0.21	<0.21	<0.21
Vinyl chloride+1,2-Dichloroethane	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Benzene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Toluene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Ethylbenzene+Xylenes	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
TVOCs	0	0	0	0	2.0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nQ-13-14	nQ-13-14	L-8-14	L-8-14	L-8-14	L-8-14	L-8-14	L-8-14	L-8-14	L-8-14	L-8-14
Sample Midpoint Depth (ft):	24	28	4	8	12	16	20	24	28	32	
Date Sampled:	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014
Sample ID:	nQ-13-14_24	nQ-13-14_28	L-8-14_4	L-8-14_8	L-8-14_12	L-8-14_16	L-8-14_20	L-8-14_24	L-8-14_28	L-8-14_32	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Trichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Dichloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Vinyl chloride+1,2-Dichloroethane	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Benzene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Toluene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Ethylbenzene+Xylenes	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
TVOCs	0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: L-8-14	L-8-14	L-8-14	L-8-14	L-8-14	L-8-14	L-8-14	L-12-14	L-12-14	L-12-14	L-12-14
Sample Midpoint Depth (ft):	36	41	44	48	55	56	4	8	12	16	
Date Sampled:	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	
Sample ID:	L-8-14_36	L-8-14_41	L-8-14_44	L-8-14_48	L-8-14_55	L-8-14_56	L-12-14_4	L-12-14_8	L-12-14_12	L-12-14_16	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	
Trichloroethene	<0.21	<0.21	<0.21	<0.21	1.14	1.35	<0.24	<0.24	<0.24	<0.24	
Dichloroethene	<0.21	<0.21	<0.21	<0.21	3.96	0.33	<0.24	<0.24	<0.24	<0.24	
Vinyl chloride+1,2-Dichloroethane	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	
Benzene	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	
Toluene	<0.21	<0.21	13.49	1.60	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	
Ethylbenzene+Xylenes	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	
TVOCs	0	0	13	1.6	5.1	1.7	0	0	0	0	

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: L-12-14	L-12-14	L-12-14	L-12-14	L-12-14	L-12-14	L-12-14	L-12-14	L-12-14	L-12-14	L-12-14
Sample Midpoint Depth (ft):	20	24	28	32	36	40	42	44	45	48	
Date Sampled:	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014
Sample ID:	L-12-14_20	L-12-14_24	L-12-14_28	L-12-14_32	L-12-14_36	L-12-14_40	L-12-14_42	L-12-14_44	L-12-14_45	L-12-14_48	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.96	<0.24
Trichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.96	<0.24
Dichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.96	<0.24
Vinyl chloride+1,2-Dichloroethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.96	<0.24
Benzene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.96	<0.24
Toluene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	15.57	<0.96	<0.24
Ethylbenzene+Xylenes	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.96	<0.24
TVOCs	0	0	0	0	0	0	0	0	16	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: L-12-14	L-12-14	N-12-14	N-12-14	N-12-14	N-12-14	N-12-14	N-12-14	N-12-14	N-12-14	N-12-14
Sample Midpoint Depth (ft):	52	56	4	8	12	16	20	24	28	32	
Date Sampled:	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014
Sample ID:	L-12-14_52	L-12-14_56	N-12-14_4	N-12-14_8	N-12-14_12	N-12-14_16	N-12-14_20	N-12-14_24	N-12-14_28	N-12-14_32	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Trichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Dichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Vinyl chloride+1,2-Dichloroethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Benzene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Toluene	1.04	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Ethylbenzene+Xylenes	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
TVOCs	1.0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: N-12-14	N-12-14	N-12-14	N-12-14	N-12-14	N-12-14	N-12-14	N-12-14	P-7-14	P-7-14	P-7-14
Sample Midpoint Depth (ft):	36	40	44	48	52	56	58	4	8	12	
Date Sampled:	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/5/2014	11/5/2014	11/5/2014	
Sample ID:	N-12-14_36	N-12-14_40	N-12-14_44	N-12-14_48	N-12-14_52	N-12-14_56	N-12-14_58	P-7-14_4	P-7-14_8	P-7-14_12	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.19	<0.19	<0.19	
Trichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	1.24	<0.19	<0.19	<0.19	
Dichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.19	<0.19	<0.19	
Vinyl chloride+1,2-Dichloroethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.19	<0.19	<0.19	
Benzene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.19	<0.19	<0.19	
Toluene	<0.24	<0.24	<0.24	5.00	3.68	1.98	<0.24	<0.19	<0.19	<0.19	
Ethylbenzene+Xylenes	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.19	<0.19	<0.19	
TVOCs	0	0	0	5.0	3.7	2.0	1.2	0	0	0	

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: P-7-14	P-7-14	P-7-14	P-7-14	P-7-14	P-7-14	P-7-14	P-7-14	P-7-14	P-7-14	P-7-14
Sample Midpoint Depth (ft):	16	20	24	28	32	36	40	44	48	52	
Date Sampled:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014
Sample ID:	P-7-14_16	P-7-14_20	P-7-14_24	P-7-14_28	P-7-14_32	P-7-14_36	P-7-14_40	P-7-14_44	P-7-14_48	P-7-14_52	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Trichloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Dichloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Vinyl chloride+1,2-Dichloroethane	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Benzene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Toluene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Ethylbenzene+Xylenes	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
TVOCs	0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: P-7-14	P-12-14	P-12-14	P-12-14	P-12-14	P-12-14	P-12-14	P-12-14	P-12-14	P-12-14	P-12-14
Sample Midpoint Depth (ft):	56	4	7	12	16	20	24	28	32	36	
Date Sampled:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	
Sample ID:	P-7-14_56	P-12-14_4	P-12-14_7	P-12-14_12	P-12-14_16	P-12-14_20	P-12-14_24	P-12-14_28	P-12-14_32	P-12-14_36	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Trichloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Dichloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Vinyl chloride+1,2-Dichloroethane	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Benzene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Toluene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Ethylbenzene+Xylenes	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
TVOCs	0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: P-12-14	P-12-14	P-12-14	P-12-14	P-12-14	P-12-14	P-12-14	Q-8-14	Q-8-14	Q-8-14	Q-8-14
Sample Midpoint Depth (ft):	40	44	48	51	53	55	4	8	16	20	
Date Sampled:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	
Sample ID:	P-12-14_40	P-12-14_44	P-12-14_48	P-12-14_51	P-12-14_53	P-12-14_55	Q-8-14_4	Q-8-14_8	Q-8-14_16	Q-8-14_20	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Trichloroethene	<0.19	<0.19	0.09J	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Dichloroethene	<0.19	17.48	0.39	0.13J	0.60	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Vinyl chloride+1,2-Dichloroethane	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Benzene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Toluene	<0.19	<0.19	<0.19	<0.19	1.16	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Ethylbenzene+Xylenes	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
TVOCs	0	17	0.50	0	1.8	0	0	0	0	0	

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Q-8-14	Q-8-14	Q-8-14	Q-8-14	Q-8-14	Q-8-14	Q-8-14	Q-8-14	Q-8-14	G-8-14	G-8-14
Sample Midpoint Depth (ft):	24	28	32	36	40	44	48	52	52	4	8
Date Sampled:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/6/2014	11/6/2014
Sample ID:	Q-8-14_24	Q-8-14_28	Q-8-14_32	Q-8-14_36	Q-8-14_40	Q-8-14_44	Q-8-14_48	Q-8-14_52	Q-8-14_52	G-8-14_4	G-8-14_8
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.24	<0.24
Trichloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	4.87	<0.19	<0.19	<0.24	<0.24
Dichloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	5.49	<0.19	<0.19	<0.24	<0.24
Vinyl chloride+1,2-Dichloroethane	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.24	<0.24
Benzene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.24	<0.24
Toluene	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	1.08	<0.19	<0.19	<0.24	35.10
Ethylbenzene+Xylenes	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.24	<0.24
TVOCs	0	0	0	0	0	0	11	0	0	0	35

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: G-8-14	G-8-14	G-8-14	G-8-14	G-8-14	H-7-14	H-7-14	H-7-14	H-7-14	H-7-14
Sample Midpoint Depth (ft):	12	16	20	24	28	4	8	12	16	20
Date Sampled:	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014
Sample ID:	G-8-14_12	G-8-14_16	G-8-14_20	G-8-14_24	G-8-14_28	H-7-14_4	H-7-14_8	H-7-14_12	H-7-14_16	H-7-14_20
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<4.17	<1.67	<0.42	<0.21
Trichloroethene	0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<4.0	<1.6	<0.42	<0.21
Dichloroethene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<4.0	<1.6	<0.42	<0.21
Vinyl chloride+1,2-Dichloroethane	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<4.0	<1.6	<0.42	<0.21
Benzene	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<4.0	<1.6	<0.42	<0.21
Toluene	6.19	<0.24	<0.24	<0.24	<0.24	<0.21	760.10	437.03	21.89	<0.21
Ethylbenzene+Xylenes	<0.24	<0.24	<0.24	<0.24	<0.24	<0.21	<4.17	<1.67	<0.42	<0.21
TVOCs	6.4	0	0	0	0	0	760	440	22	0

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: H-7-14	H-7-14	I-2-14	I-2-14	I-2-14	I-2-14	I-2-14	I-2-14	I-2-14	I-2-14	I-2-14
Sample Midpoint Depth (ft):	22	28	22	26	30	34	38	42	46	50	
Date Sampled:	11/3/2014	11/3/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	
Sample ID:	H-7-14_22	H-7-14_28	I-2-14_22	I-2-14_26	I-2-14_30	I-2-14_34	I-2-14_38	I-2-14_42	I-2-14_46	I-2-14_50	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Trichloroethene	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	0.08J	0.50
Dichloroethene	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Vinyl chloride+1,2-Dichloroethane	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Benzene	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Toluene	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
Ethylbenzene+Xylenes	<0.21	<0.21	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24	<0.24
TVOCs	0	0	0	0	0	0	0	0	0	0.10	0.50

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: J-4-14	J-4-14	J-4-14	J-4-14	J-4-14	J-4-14	J-4-14	J-4-14	J-4-14	K-10-14	K-10-14
Sample Midpoint Depth (ft):	22	26	30	34	38	42	46	50	50	4	8
Date Sampled:	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014
Sample ID:	J-4-14_22	J-4-14_26	J-4-14_30	J-4-14_34	J-4-14_38	J-4-14_42	J-4-14_46	J-4-14_50	J-4-14_50	K-10-14_4	K-10-14_8
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	9.04	2.10	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.82	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	6.63	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.21	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0	0	0	16	2.1	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: K-10-14	K-10-14	K-10-14	K-10-14	K-10-14	K-10-14	K-10-14	K-10-14	K-10-14	K-10-14	K-10-14
Sample Midpoint Depth (ft):	12	16	20	24	28	32	36	40	44	48	48
Date Sampled:	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014
Sample ID:	K-10-14_12	K-10-14_16	K-10-14_20	K-10-14_24	K-10-14_28	K-10-14_32	K-10-14_36	K-10-14_40	K-10-14_44	K-10-14_48	K-10-14_48
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: K-10-14	nL-10-14	nL-10-14	nL-10-14	nL-10-14	nL-10-14	nL-10-14	nL-10-14	nL-10-14	P-9-14	P-9-14
Sample Midpoint Depth (ft):	52	4	8	12	16	20	24	28		4	8
Date Sampled:	11/7/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/6/2014	11/6/2014
Sample ID:	K-10-14_52	nL-10-14_4	nL-10-14_8	nL-10-14_12	nL-10-14_16	nL-10-14_20	nL-10-14_24	nL-10-14_28		P-9-14_4	P-9-14_8
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.20	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24
Trichloroethene	<0.20	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24
Dichloroethene	<0.20	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24
Benzene	<0.20	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24
Toluene	<0.20	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24
Ethylbenzene+Xylenes	<0.20	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.24	<0.24
TVOCs	0	0	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: P-9-14	P-9-14	P-9-14	P-9-14	P-9-14	P-9-14	P-9-14	P-9-14	P-9-14	P-9-14	P-9-14
Sample Midpoint Depth (ft):	12	14	16	20	24	28	32	36	38	40	
Date Sampled:	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/6/2014	11/7/2014	11/7/2014	11/7/2014	
Sample ID:	P-9-14_12	P-9-14_14	P-9-14_16	P-9-14_20	P-9-14_24	P-9-14_28	P-9-14_32	P-9-14_36	P-9-14_38	P-9-14_40	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.24	<0.98	<1.95	<0.24	<0.24	<0.24	<0.20	<0.20	<0.20	<0.81	
Trichloroethene	<0.24	36.69	91.94	2.31	<0.24	<0.24	<0.20	1.57	<0.20	<0.81	
Dichloroethene	<0.24	<0.98	<1.95	<0.24	<0.24	<0.24	<0.20	<0.20	<0.20	<0.81	
Vinyl chloride+1,2-Dichloroethane	<0.24	<0.98	<1.95	<0.24	<0.24	<0.24	<0.20	<0.20	<0.20	<0.81	
Benzene	<0.24	<0.98	<1.95	<0.24	<0.24	<0.24	<0.20	<0.20	<0.20	<0.81	
Toluene	<0.24	153.22	127.19	25.77	<0.24	<0.24	<0.20	7.62	<0.20	40.26	
Ethylbenzene+Xylenes	<0.24	<0.98	<1.95	<0.24	<0.24	<0.24	<0.20	<0.20	<0.20	<0.81	
TVOCs	0	190	220	28	0	0	0	9.2	0	40	

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: P-9-14	P-9-14	P-9-14	P-9-14	P-9-14	H-5-14	H-5-14	H-5-14	H-5-14	H-5-14
Sample Midpoint Depth (ft):	44	45	48	50	52	22	26	30	34	38
Date Sampled:	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014	11/7/2014
Sample ID:	P-9-14_44	P-9-14_45	P-9-14_48	P-9-14_50	P-9-14_52	H-5-14_22	H-5-14_26	H-5-14_30	H-5-14_34	H-5-14_38
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.81	<0.81	<1.74	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<1.74	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	28.78	<0.20	37.11	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<1.74	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<1.74	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	10.75	<0.20	199.07	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<1.74	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	40	0	240	0	0	0	0	0	0	0

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: H-5-14	H-5-14	H-5-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14
Sample Midpoint Depth (ft):	42	46	50	4	8	9	12	16	20	24	
Date Sampled:	11/7/2014	11/7/2014	11/7/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014
Sample ID:	H-5-14_42	H-5-14_46	H-5-14_50	M-9-14_4	M-9-14_8	M-9-14_9	M-9-14_12	M-9-14_16	M-9-14_20	M-9-14_24	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Trichloroethene	<0.20	10.09	7.03	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Dichloroethene	<0.20	<0.20	0.74	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Benzene	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
Toluene	<0.20	4.61	<0.20	4.61	1.90	26.92	<0.19	<0.19	<0.19	<0.19	<0.19
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19
TVOCs	0	15	7.8	4.6	1.9	27	0	0	0	0	

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14	M-9-14
Sample Midpoint Depth (ft):	28	31	34	36	40	43	45	46	49	51	
Date Sampled:	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014
Sample ID:	M-9-14_28	M-9-14_31	M-9-14_34	M-9-14_36	M-9-14_40	M-9-14_43	M-9-14_45	M-9-14_46	M-9-14_49	M-9-14_51	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<4.0	<4.0	<0.37	<0.19	<0.19	
Trichloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<4.0	0.10J	0.39	<0.19	<0.19	
Dichloroethene	<0.19	<0.19	<0.19	<0.19	<0.19	<4.0	<4.0	0.58	<0.19	<0.19	
Vinyl chloride+1,2-Dichloroethane	<0.19	<0.19	<0.19	<0.19	<0.19	<4.0	<4.0	<0.37	<0.19	<0.19	
Benzene	<0.19	<0.19	<0.19	<0.19	<0.19	<4.0	<4.0	<0.37	<0.19	<0.19	
Toluene	<0.19	<0.19	<0.19	<0.19	<0.19	345.53	5.15	3.26	1.16	1.26	
Ethylbenzene+Xylenes	<0.19	<0.19	<0.19	<0.19	<0.19	<4.0	<4.0	<0.37	<0.19	<0.19	
TVOCs	0	0	0	0	0	350	5.2	4.2	1.2	1.3	

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: M-9-14	M-9-14	F-4-14	F-4-14	F-4-14	F-4-14	F-4-14	F-4-14	F-4-14	F-4-14	F-4-14
Sample Midpoint Depth (ft):	54	57	1.5	4.5	7.5	10.5	13.5	16.5	19.5	22.5	
Date Sampled:	11/5/2014	11/5/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014
Sample ID:	M-9-14_54	M-9-14_57	F-4-14_1.5	F-4-14_4.5	F-4-14_7.5	F-4-14_10.5	F-4-14_13.5	F-4-14_16.5	F-4-14_19.5	F-4-14_22.5	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.19	<0.19	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.19	0.55	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.19	0.15J	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.19	<0.19	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.19	<0.19	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	1.17	<0.19	<0.20	1.12	1.69	<0.20	13.00	0.26	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.19	<0.19	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	1.2	0.6	0	1.1	1.7	0	13	0.3	0	0	

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: F-4-14	F-4-14	F-9-14	F-9-14	F-9-14	F-9-14	F-9-14	nK-7-14	nK-7-14
Sample Midpoint Depth (ft):	25.5	28.5	1.5	4.5	7.5	10.5	13.5	31.5	34.5
Date Sampled:	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014
Sample ID:	F-4-14_25.5	F-4-14_28.5	F-9-14_1.5	F-9-14_4.5	F-9-14_7.5	F-9-14_10.5	F-9-14_13.5	nK-7-14_31.5	nK-7-14_34.5
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	0.69	<0.20	<0.20	<0.20	<0.20	1.37	1.53	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0.69	0	0	0	0	1.4	1.5	0	0

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nK-7-14	nK-7-14	nK-7-14	nK-7-14	nK-7-14	nK-7-14	nK-7-14	nK-7-14	nK-7-14	nQ-13-14R
Sample Midpoint Depth (ft):	37.5	40.5	43.5	46.5	49.5	52.5	55.5	58.5	58.5	31.5
Date Sampled:	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/15/2014	12/16/2014
Sample ID:	nK-7-14_37.5	nK-7-14_40.5	nK-7-14_43.5	nK-7-14_46.5	nK-7-14_49.5	nK-7-14_52.5	nK-7-14_55.5	nK-7-14_58.5	nK-7-14_58.5	nQ-13-14R_31.5
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	0.58	1.10	0.87	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0.58	1.1	0.87	0	0	0

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nQ-13-14R	nQ-13-14R	nQ-13-14R	nQ-13-14R	nQ-13-14R	nQ-13-14R	nQ-13-14R	nQ-13-14R	nQ-13-14R
Sample Midpoint Depth (ft):	34.5	37.5	40.5	43.5	46.5	49.5	52.5	55.5	
Date Sampled:	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014
Sample ID:	nQ-13-14R_34.5	nQ-13-14R_37.5	nQ-13-14R_40.5	nQ-13-14R_43.5	nQ-13-14R_46.5	nQ-13-14R_49.5	nQ-13-14R_52.5	nQ-13-14R_55.5	
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	1.19	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	6.28	<0.20	0.18J	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	0.54	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	8.0	0	0.18	0	0

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nQ-13-14R	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14
Sample Midpoint Depth (ft):	58.5	1.5	4.5	7.5	10.5	13.5	16.5	19.5	22.5
Date Sampled:	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014
Sample ID:	nQ-13-14R_58.5	nR-10-14_1.5	nR-10-14_4.5	nR-10-14_7.5	nR-10-14_10.5	nR-10-14_13.5	nR-10-14_16.5	nR-10-14_19.5	nR-10-14_22.5
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	0.85	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0.85	0	0	0	0	0	0	0	0

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14	nR-10-14
Sample Midpoint Depth (ft):	25.5	28.5	31.5	34.5	37.5	40.5	43.5	46.5	49.5	
Date Sampled:	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014
Sample ID:	nR-10-14_25.5	nR-10-14_28.5	nR-10-14_31.5	nR-10-14_34.5	nR-10-14_37.5	nR-10-14_40.5	nR-10-14_43.5	nR-10-14_46.5	nR-10-14_49.5	
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.69	0.64
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	8.51	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.29	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.50	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0	0	0	0	15	0.64

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nR-10-14	nR-10-14	nR-10-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14
Sample Midpoint Depth (ft):	52.5	55.5	58.5	1.5	4.5	7.5	10.5	13.5	16.5
Date Sampled:	12/16/2014	12/16/2014	12/16/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nR-10-14_52.5	nR-10-14_55.5	nR-10-14_58.5	nG-2-14_1.5	nG-2-14_4.5	nG-2-14_7.5	nG-2-14_10.5	nG-2-14_13.5	nG-2-14_16.5
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-2-14
Sample Midpoint Depth (ft):	25.5	28.5	31.5	34.5	37.5	40.5	43.5	46.5	49.5	
Date Sampled:	12/17/2014	12/17/2014	12/18/2014	12/18/2014	12/18/2014	12/18/2014	12/18/2014	12/18/2014	12/18/2014	12/18/2014
Sample ID:	nG-2-14_25.5	nG-2-14_28.5	nG-2-14_31.5	nG-2-14_34.5	nG-2-14_37.5	nG-2-14_40.5	nG-2-14_43.5	nG-2-14_46.5	nG-2-14_49.5	
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.45
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0	0	0	0	0	0.45

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nG-2-14	nG-2-14	nG-2-14	nG-2-14	nG-6-14	nG-6-14	nG-6-14	nG-6-14	nG-6-14
Sample Midpoint Depth (ft):	25.5	52.5	55.5	58.5	1.5	4.5	7.5	10.5	13.5
Date Sampled:	12/17/2014	12/18/2014	12/18/2014	12/18/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nG-2-14_25.5	nG-2-14_52.5	nG-2-14_55.5	nG-2-14_58.5	nG-6-14_1.5	nG-6-14_4.5	nG-6-14_7.5	nG-6-14_10.5	nG-6-14_13.5
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<8.0	<8.0
Trichloroethene	<0.20	3.82	<0.20	<0.20	<0.20	<0.20	<4.0	<8.0	<8.0
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<8.0	<8.0
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<8.0	<8.0
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<8.0	<8.0
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	254.74	515.38	262.14
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<8.0	71.07
TVOCs	0	3.8	0	0	0	0	250	520	330

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Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nG-6-14	nG-6-14	nG-6-14	nG-6-14	nG-6-14	F-6-14	F-6-14	F-6-14	F-6-14	F-6-14
Sample Midpoint Depth (ft):	16.5	19.5	22.5	25.5	28.5	1.5	4.5	7.5	10.5	13.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nG-6-14_16.5	nG-6-14_19.5	nG-6-14_22.5	nG-6-14_25.5	nG-6-14_28.5	F-6-14_1.5	F-6-14_4.5	F-6-14_7.5	F-6-14_10.5	F-6-14_13.5
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<2.0
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<2.0
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<2.0
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<2.0
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<2.0
Toluene	3.84	<0.20	<0.20	<0.20	<0.20	<0.20	3.51	11.12	38.61	30.30
Ethylbenzene+Xylenes	4.01	<0.20	<0.20	<0.20	<0.20	<0.20	6.75	9.12	21.13	24.65
TVOCs	7.9	0	0	0	0	0	10	20	60	55

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: F-6-14	F-6-14	F-6-14	F-6-14	F-6-14	nL-10-14R	nL-10-14R	nL-10-14R	nL-10-14R
Sample Midpoint Depth (ft):	16.5	19.5	22.5	25.5	28.5	31.5	34.5	37.5	40.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014
Sample ID:	F-6-14_16.5	F-6-14_19.5	F-6-14_22.5	F-6-14_25.5	F-6-14_28.5	nL-10-14R_31.5	nL-10-14R_34.5	nL-10-14R_37.5	nL-10-14R_40.5
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<2.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<2.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<2.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<2.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<2.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<2.0	2.35	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<2.0	4.43	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	6.8	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nL-10-14R	nL-10-14R	nL-10-14R	nL-10-14R	nL-10-14R	nL-10-14R	nM-10-14	nM-10-14	nM-10-14
Sample Midpoint Depth (ft):	43.5	46.5	49.5	52.5	55.5	58.5	1.5	4.5	7.5
Date Sampled:	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014
Sample ID:	nL-10-14R_43.5	nL-10-14R_46.5	nL-10-14R_49.5	nL-10-14R_52.5	nL-10-14R_55.5	nL-10-14R_58.5	nM-10-14_1.5	nM-10-14_4.5	nM-10-14_7.5
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<8.0	<0.20	<0.20	<0.20	<0.20	0.11J	<0.20	<0.20	<0.20
Dichloroethene	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	446.67	0.39	0.33	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	493.33	1.04	1.39	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	940	1.4	1.7	0	0	0.11	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14
Sample Midpoint Depth (ft):	10.5	13.5	16.5	19.5	22.5	25.5	28.5	31.5	
Date Sampled:	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014
Sample ID:	nM-10-14_10.5	nM-10-14_13.5	nM-10-14_16.5	nM-10-14_19.5	nM-10-14_22.5	nM-10-14_25.5	nM-10-14_28.5	nM-10-14_31.5	
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14	nM-10-14
Sample Midpoint Depth (ft):	34.5	37.5	40.5	43.5	46.5	49.5	52.5	55.5	
Date Sampled:	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014	12/16/2014
Sample ID:	nM-10-14_34.5	nM-10-14_37.5	nM-10-14_40.5	nM-10-14_43.5	nM-10-14_46.5	nM-10-14_49.5	nM-10-14_52.5	nM-10-14_55.5	
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<2.0	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<2.0	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<2.0	9.29	<0.20	<0.20	<0.20	<0.20	0.65
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<2.0	16.16	<0.20	<0.20	<0.20	<0.20	1.00
Benzene	<0.20	<0.20	<2.0	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	22.74	125.25	5.11	0.94	0.47	0.47	3.52
Ethylbenzene+Xylenes	<0.20	<0.20	61.69	104.65	2.24	1.55	1.49	1.49	0.43
TVOCs	0	0	84	260	7.4	2.5	2.0	2.0	5.6

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nM-10-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14
Sample Midpoint Depth (ft):	58.5	1.5	4.5	7.5	10.5	13.5	16.5	19.5	22.5	
Date Sampled:	12/16/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nM-10-14_58.5	nM-11-14_1.5	nM-11-14_4.5	nM-11-14_7.5	nM-11-14_10.5	nM-11-14_13.5	nM-11-14_16.5	nM-11-14_19.5	nM-11-14_22.5	
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	0.66	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	0.25	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0.91	0	0	0	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14	nM-11-14
Sample Midpoint Depth (ft):	25.5	28.5	31.5	34.5	37.5	40.5	43.5	46.5	49.5	
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nM-11-14_25.5	nM-11-14_28.5	nM-11-14_31.5	nM-11-14_34.5	nM-11-14_37.5	nM-11-14_40.5	nM-11-14_43.5	nM-11-14_46.5	nM-11-14_49.5	
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0	<8.0	<0.80	
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0	<8.0	<0.80	
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	29.02	<8.0	<0.80	
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0	<8.0	<0.80	
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0	<8.0	<0.80	
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	191.93	302.75	51.13	6.14	
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	182.39	273.33	55.26	1.21	
TVOCs	0	0	0	0	0	370	610	110	7.4	

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nM-11-14	nM-11-14	nM-11-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14
Sample Midpoint Depth (ft):	52.5	55.5	58.5	1.5	4.5	7.5	10.5	13.5	16.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nM-11-14_52.5	nM-11-14_55.5	nM-11-14_58.5	nN-9-14_1.5	nN-9-14_4.5	nN-9-14_7.5	nN-9-14_10.5	nN-9-14_13.5	nN-9-14_16.5
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80	<8.0	<40	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80	<8.0	2380.00	8.53
Dichloroethene	<0.20	3.26	<0.20	<0.20	<0.20	28.52	636.73	612.00	2.19
Vinyl chloride+1,2-Dichloroethane	<0.20	1.11	<0.20	<0.20	<0.20	<0.80	<8.0	<40	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80	<8.0	<40	<0.20
Toluene	4.49	4.99	<0.20	<0.20	1.58	4.36	200.82	770.00	1.43
Ethylbenzene+Xylenes	1.66	0.60	<0.20	<0.20	3.61	10.62	137.55	760.00	2.38
TVOCs	6.2	10	0	0	5.2	44	980	4500	15

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14
Sample Midpoint Depth (ft):	19.5	22.5	25.5	28.5	31.5	40.5	43.5	46.5	49.5	
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nN-9-14_19.5	nN-9-14_22.5	nN-9-14_25.5	nN-9-14_28.5	nN-9-14_31.5	nN-9-14_40.5	nN-9-14_43.5	nN-9-14_46.5	nN-9-14_49.5	
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<1.6	<40	<4.0	<4.0
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	1110.92	59.08	<40	<4.0	<4.0
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	13.87	<40	<4.0	<4.0
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<1.6	<40	<4.0	<4.0
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<1.6	<40	<4.0	<4.0
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	272.27	2.35	1540.32	65.19	65.19
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<4.0	<1.6	<40	<4.0	<4.0
TVOCs	0	0	0	0	0	1400	75	1500	65	65

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nN-9-14	nN-9-14	nN-9-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14
Sample Midpoint Depth (ft):	52.5	55.5	58.5	1.5	4.5	7.5	10.5	13.5	16.5	19.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nN-9-14_52.5	nN-9-14_55.5	nN-9-14_58.5	O-8-14_1.5	O-8-14_4.5	O-8-14_7.5	O-8-14_10.5	O-8-14_13.5	O-8-14_16.5	O-8-14_19.5
CONSTITUENT (unit in mg/kg)										
Tetrachloroethene	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	7.49	<0.20	<0.20	<0.20	1.22	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	7.5	0	0	0	1.2	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: O-8-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14	O-8-14
Sample Midpoint Depth (ft):	22.5	25.5	28.5	31.5	34.5	37.5	40.5	43.5	46.5	49.5	
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	O-8-14_22.5	O-8-14_25.5	O-8-14_28.5	O-8-14_31.5	O-8-14_34.5	O-8-14_37.5	O-8-14_40.5	O-8-14_43.5	O-8-14_46.5	O-8-14_49.5	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<8.0	<8.0
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	6.64	618.18	235.25
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	16.78	440.00	30.17
TVOCs	0	0	0	0	0	0	0	0	23	1100	270

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: O-8-14	O-8-14	O-8-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14
Sample Midpoint Depth (ft):	52.5	55.5	58.5	1.5	4.5	7.5	10.5	13.5	16.5	19.5	
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	O-8-14_52.5	O-8-14_55.5	O-8-14_58.5	Q-9-14_1.5	Q-9-14_4.5	Q-9-14_7.5	Q-9-14_10.5	Q-9-14_13.5	Q-9-14_16.5	Q-9-14_19.5	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	<0.20	<0.20	0.92	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
TVOCs	0	0	0	0	0.92	0	0	0	0	0	0

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14	Q-9-14
Sample Midpoint Depth (ft):	22.5	25.5	28.5	31.5	34.5	37.5	40.5	43.5	46.5	49.5	
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	Q-9-14_22.5	Q-9-14_25.5	Q-9-14_28.5	Q-9-14_31.5	Q-9-14_34.5	Q-9-14_37.5	Q-9-14_40.5	Q-9-14_43.5	Q-9-14_46.5	Q-9-14_49.5	
CONSTITUENT (unit in mg/kg)											
Tetrachloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80	<0.20	<0.20	
Trichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	24.58	<0.20	<0.20	
Dichloroethene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.85	0.86	0.42	
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80	<0.20	<0.20	
Benzene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80	<0.20	<0.20	
Toluene	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.41	1.21	<0.20	<0.20	
Ethylbenzene+Xylenes	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.17	<0.80	<0.20	<0.20	
TVOCs	0	0	0	0	0	0	1.6	29	0.86	0.42	

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Q-9-14	Q-9-14	Q-9-14	nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R
Sample Midpoint Depth (ft):	52.5	55.5	58.5	31.5	34.5	37.5	40.5	43.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	Q-9-14_52.5	Q-9-14_55.5	Q-9-14_58.5	nQ-10-14R_31.5	nQ-10-14R_34.5	nQ-10-14R_37.5	nQ-10-14R_40.5	nQ-10-14R_43.5
CONSTITUENT (unit in mg/kg)								
Tetrachloroethene	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80
Trichloroethene	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	36.26
Dichloroethene	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	117.36
Vinyl chloride+1,2-Dichloroethane	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80
Benzene	<8.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.80
Toluene	40.86	<0.20	<0.20	<0.20	<0.20	<0.20	0.86	<0.80
Ethylbenzene+Xylenes	63.88	<0.20	<0.20	<0.20	<0.20	<0.20	3.23	<0.80
TVOCs	100	0	0	0	0	0	4.1	150

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R	nZCC-13-14	nZCC-13-14	nZCC-13-14
Sample Midpoint Depth (ft):	46.5	49.5	52.5	55.5	58.5	1.5	4.5	7.5	
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sample ID:	nQ-10-14R_46.5	nQ-10-14R_49.5	nQ-10-14R_52.5	nQ-10-14R_55.5	nQ-10-14R_58.5	nZCC-13-14_1.5	nZCC-13-14_4.5	nZCC-13-14_7.5	
CONSTITUENT (unit in mg/kg)									
Tetrachloroethene	<0.20	<0.20	<4.0	<0.80	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethene	<0.20	<0.20	4.71	<0.80	<0.20	1.42	<0.20	<0.20	<0.20
Dichloroethene	<0.20	2.53	<4.0	<0.80	<0.20	<0.20	<0.20	6.77	<0.20
Vinyl chloride+1,2-Dichloroethane	<0.20	<0.20	<4.0	<0.80	<0.20	<0.20	<0.20	<0.20	<0.20
Benzene	<0.20	<0.20	<4.0	<0.80	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	<0.20	<0.20	474.51	<0.80	<0.20	<0.20	<0.20	<0.20	3.33
Ethylbenzene+Xylenes	<0.20	<0.20	<4.0	<0.80	<0.20	<0.20	<0.20	<0.20	7.50
TVOCs	0	2.5	480	0	0	1.4	0	18	

Notes and Abbreviations on last page.

Table 3. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Field Analytical Method, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Notes and Abbreviations:

1. Samples submitted to mobile laboratory were analyzed for the TCL VOCs using Direct Sampling Ion Trap Mass Spectrometer (DSITMS) using USEPA Method 8265. A total of 15 percent of mobile lab samples were also analyzed by a fixed base laboratory for confirmation.
2. Samples analyzed on a dry weight basis.
3. Samples were collected every 4 feet per the Pre-Design Sampling Work Plan for VOC Source Area (Work Plan) (EMAGIN 2014)
4. Additional samples collected per Work Plan Addendum (ARCADIS 2014) were collected every 3 feet.

Bold value indicates a detection

15	Indicates TVOC concentration greater than 10 mg/kg
TCL	Target compound list
VOC	Volatile organic compound
TVOCs	Total volatile organic compounds
ft	Feet below original land surface that existed prior to the Town of Oyster Bay bringing in cover material.
mg/kg	Milligrams per kilogram
J	Value is estimated

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Sample Midpoint Depth (ft): Date Sampled: Sampled ID:	F-2-14 34 11/6/2014 F-2-14_34	nJ-6-14 12 11/3/2014 nJ-6-14_12	M-7-14 22 11/3/2014 M-7-14_22	M-7-14 52 11/3/2014 M-7-14_52	M-7-14 56 11/3/2014 M-7-14_56	O-5-14 52 11/7/2014 O-5-14_52
CONSTITUENT (unit in mg/kg)							
1,1,1-Trichloroethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,1,2,2-Tetrachloroethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.56	< 0.67	< 0.61	< 0.51	< 0.49	< 0.49	< 0.67
1,1,2-Trichloroethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,1-Dichloroethene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,2,4-Trichlorobenzene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,2-Dibromo-3-chloropropane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,2-Dibromoethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,2-Dichlorobenzene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,2-Dichloroethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,2-Dichloropropane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,3-Dichlorobenzene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
1,4-Dichlorobenzene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
2-Butanone (MEK)	< 0.56	< 0.67	< 0.61	< 0.51	< 0.49	< 0.49	0.85
4-Methyl-2-Pentanone	< 0.56	< 0.67	< 0.61	< 0.51	< 0.49	< 0.49	< 0.67
Acetone	< 1.1	< 1.3	< 1.2	< 1	< 0.98	< 0.98	1 J
Benzene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Bromodichloromethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Bromoform	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Bromomethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Carbon Disulfide	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Carbon Tetrachloride	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
CFC-11	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
CFC-12	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Chlorobenzene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Chlorodibromomethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Chloroethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Chloroform	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Chloromethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
cis-1,2-Dichloroethene	< 0.28	< 0.33	< 0.3	1.8	0.96	< 0.25	< 0.33
cis-1,3-Dichloropropene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Cyclohexane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Dichloromethane	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Ethylbenzene	< 0.28	< 0.33	< 0.3	0.097 J	< 0.25	< 0.25	< 0.33
Isopropylbenzene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Methyl Acetate	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Methyl N-Butyl Ketone (2-Hexanone)	< 0.56	< 0.67	< 0.61	< 0.51	< 0.49	< 0.49	< 0.67
Methylcyclohexane	< 0.28	< 0.33	0.22 J	< 0.25	< 0.25	< 0.25	< 0.33
Methyl-tert-butylether	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Styrene (Monomer)	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Tetrachloroethene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Toluene	< 0.28	< 0.33	0.12 J	0.27	< 0.25	< 0.25	< 0.33
Total Xylenes	< 0.28	< 0.33	< 0.3	0.26	< 0.25	< 0.25	< 0.33
trans-1,2-Dichloroethene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
trans-1,3-Dichloropropene	< 0.28	< 0.33	< 0.3	< 0.25	< 0.25	< 0.25	< 0.33
Trichloroethene	< 0.28	0.2 J	< 0.3	0.88	1.1	< 0.25	< 0.33
Vinyl chloride	< 0.28	< 0.33	< 0.3	0.19 J	< 0.25	< 0.25	< 0.33
TVOCs	0	0.20	0.34	3.5	2.1	1.9	

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Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nQ-13-14	L-8-14	L-8-14	L-8-14	L-8-14	L-8-14
Sample Midpoint Depth (ft):	4	8	44	48	55	56
Date Sampled:	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014	11/3/2014
Sampled ID:	nQ-13-14_4	L-8-14_8	L-8-14_44	L-8-14_48	L-8-14_55	L-8-14_56
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	0.16 J	0.071 J	< 0.22	< 0.23	< 0.22	< 0.25
1,1,2,2-Tetrachloroethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.6	< 0.52	< 0.45	< 0.45	< 0.45	< 0.5
1,1,2-Trichloroethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,1-Dichloroethene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,2,4-Trichlorobenzene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,2-Dibromo-3-chloropropane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,2-Dibromoethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,2-Dichlorobenzene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,2-Dichloroethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,2-Dichloropropane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,3-Dichlorobenzene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
1,4-Dichlorobenzene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
2-Butanone (MEK)	< 0.6	< 0.52	< 0.45	< 0.45	< 0.45	< 0.5
4-Methyl-2-Pentanone	< 0.6	< 0.52	< 0.45	< 0.45	< 0.45	< 0.5
Acetone	< 1.2	< 1	< 0.89	< 0.9	< 0.89	< 1
Benzene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Bromodichloromethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Bromoform	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Bromomethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Carbon Disulfide	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Carbon Tetrachloride	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
CFC-11	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
CFC-12	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Chlorobenzene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Chlorodibromomethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Chloroethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Chloroform	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Chloromethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
cis-1,2-Dichloroethene	0.65	0.093 J	< 0.22	0.085 J	6.5	0.5
cis-1,3-Dichloropropene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Cyclohexane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Dichloromethane	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Ethylbenzene	< 0.3	< 0.26	0.18 J	0.13 J	0.059 J	< 0.25
Isopropylbenzene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Methyl Acetate	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Methyl N-Butyl Ketone (2-Hexanone)	< 0.6	< 0.52	< 0.45	< 0.45	< 0.45	< 0.5
Methylcyclohexane	< 0.3	< 0.26	0.14 J	< 0.23	< 0.22	< 0.25
Methyl-tert-butylether	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Styrene (Monomer)	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Tetrachloroethene	< 0.3	0.057 J	< 0.22	< 0.23	< 0.22	< 0.25
Toluene	< 0.3	< 0.26	1.3	0.96	0.068 J	< 0.25
Total Xylenes	< 0.3	< 0.26	0.86	0.56	0.25	< 0.25
trans-1,2-Dichloroethene	0.097 J	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
trans-1,3-Dichloropropene	< 0.3	< 0.26	< 0.22	< 0.23	< 0.22	< 0.25
Trichloroethene	2.6	1.7	< 0.22	0.097 J	1.3	1.5
Vinyl chloride	< 0.3	< 0.26	< 0.22	< 0.23	0.098 J	< 0.25
TVOCs	3.7	1.9	2.5	1.8	8.3	2.0

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Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: L-12-14	N-12-14	P-7-14	P-12-14	P-12-14	P-12-14
Sample Midpoint Depth (ft):	44	48	56	36	44	53
Date Sampled:	11/6/2014	11/6/2014	11/5/2014	11/5/2014	11/5/2014	11/5/2014
Sampled ID:	L-12-14_44	N-12-14_48	P-7-14_56	P-12-14_36	P-12-14_44	P-12-14_53
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,1,2,2-Tetrachloroethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.52	< 0.67	< 0.85	< 0.52	< 0.49	< 0.46
1,1,2-Trichloroethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,1-Dichloroethene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,2,4-Trichlorobenzene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,2-Dibromo-3-chloropropane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,2-Dibromoethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,2-Dichlorobenzene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,2-Dichloroethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,2-Dichloropropane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,3-Dichlorobenzene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
1,4-Dichlorobenzene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
2-Butanone (MEK)	< 0.52	0.88	< 0.85	< 0.52	< 0.49	< 0.46
4-Methyl-2-Pentanone	< 0.52	< 0.67	< 0.85	< 0.52	< 0.49	< 0.46
Acetone	< 1	0.93 J	< 1.7	< 1	< 0.97	< 0.93
Benzene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Bromodichloromethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Bromoform	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Bromomethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Carbon Disulfide	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Carbon Tetrachloride	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
CFC-11	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
CFC-12	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Chlorobenzene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Chlorodibromomethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Chloroethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Chloroform	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Chloromethane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
cis-1,2-Dichloroethene	< 0.26	3.1	< 0.42	< 0.26	23	1.4
cis-1,3-Dichloropropene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Cyclohexane	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Dichloromethane	< 0.26	< 0.33	< 0.42	< 0.26	0.13 J	< 0.23
Ethylbenzene	7.4	0.086 J	< 0.42	< 0.26	< 0.24	< 0.23
Isopropylbenzene	0.49	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Methyl Acetate	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Methyl N-Butyl Ketone (2-Hexanone)	< 0.52	< 0.67	< 0.85	< 0.52	< 0.49	< 0.46
Methylcyclohexane	3.7	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Methyl-tert-butylether	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Styrene (Monomer)	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Tetrachloroethene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Toluene	41	5.3	< 0.42	< 0.26	< 0.24	1.3
Total Xylenes	38	0.34	< 0.42	< 0.26	< 0.24	0.091 J
trans-1,2-Dichloroethene	< 0.26	< 0.33	< 0.42	< 0.26	0.049 J	< 0.23
trans-1,3-Dichloropropene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Trichloroethene	< 0.26	< 0.33	< 0.42	< 0.26	< 0.24	< 0.23
Vinyl chloride	< 0.26	0.1 J	< 0.42	< 0.26	0.23 J	< 0.23
TVOCs	91	11	0	0	24	2.8

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Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID:	Q-8-14	Q-8-14	G-8-14	H-7-14	I-2-14	I-2-14
Sample Midpoint Depth (ft):	24	44	28	12	46	50
Date Sampled:	11/5/2014	11/5/2014	11/6/2014	11/3/2014	11/6/2014	11/6/2014
Sampled ID:	Q-8-14_24	Q-8-14_44	G-8-14_28	H-7-14_12	I-2-14_46	I-2-14_50
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,1,2,2-Tetrachloroethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.52	< 0.53	< 0.65	< 2.4	< 0.41	< 0.43
1,1,2-Trichloroethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,1-Dichloroethene	< 0.26	< 0.27	< 0.32	0.55 J	< 0.2	< 0.22
1,2,4-Trichlorobenzene	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,2-Dibromo-3-chloropropane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,2-Dibromoethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,2-Dichlorobenzene	< 0.26	< 0.27	< 0.32	1.4	< 0.2	< 0.22
1,2-Dichloroethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,2-Dichloropropane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,3-Dichlorobenzene	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
1,4-Dichlorobenzene	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
2-Butanone (MEK)	< 0.52	< 0.53	< 0.65	< 2.4	< 0.41	< 0.43
4-Methyl-2-Pentanone	< 0.52	< 0.53	< 0.65	< 2.4	< 0.41	< 0.43
Acetone	< 1	< 1.1	< 1.3	< 4.9	< 0.81	< 0.86
Benzene	< 0.26	< 0.27	< 0.32	0.31 J	< 0.2	< 0.22
Bromodichloromethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Bromoform	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Bromomethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Carbon Disulfide	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Carbon Tetrachloride	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
CFC-11	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
CFC-12	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Chlorobenzene	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Chlorodibromomethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Chloroethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Chloroform	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Chloromethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
cis-1,2-Dichloroethene	< 0.26	9.5	< 0.32	160	< 0.2	< 0.22
cis-1,3-Dichloropropene	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Cyclohexane	< 0.26	< 0.27	< 0.32	1.9	< 0.2	< 0.22
Dichloromethane	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Ethylbenzene	< 0.26	< 0.27	< 0.32	13	< 0.2	< 0.22
Isopropylbenzene	< 0.26	< 0.27	< 0.32	2	< 0.2	< 0.22
Methyl Acetate	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Methyl N-Butyl Ketone (2-Hexanone)	< 0.52	< 0.53	< 0.65	< 2.4	< 0.41	< 0.43
Methylcyclohexane	< 0.26	< 0.27	< 0.32	75	< 0.2	< 0.22
Methyl-tert-butylether	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Styrene (Monomer)	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Tetrachloroethene	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Toluene	< 0.26	1.2	< 0.32	540	< 0.2	< 0.22
Total Xylenes	< 0.26	< 0.27	< 0.32	67	< 0.2	< 0.22
trans-1,2-Dichloroethene	< 0.26	< 0.27	< 0.32	0.28 J	< 0.2	< 0.22
trans-1,3-Dichloropropene	< 0.26	< 0.27	< 0.32	< 1.2	< 0.2	< 0.22
Trichloroethene	< 0.26	5.6	< 0.32	< 1.2	0.16 J	0.54
Vinyl chloride	< 0.26	< 0.27	< 0.32	16	< 0.2	< 0.22
TVOCs	0	16	0	880	0.16	0.54

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Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: J-4-14	J-4-14	K-10-14	nL-10-14	P-9-14	P-9-14
Sample Midpoint Depth (ft):	46	50	52	12	16	20
Date Sampled:	11/7/2014	11/7/2014	11/7/2014	11/3/2014	11/6/2014	11/6/2014
Sampled ID:	J-4-14_46	J-4-14_50	K-10-14_52	nL-10-14_12	P-9-14_16	P-9-14_20
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,1,2,2-Tetrachloroethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.56	< 0.55	< 0.48	< 0.23	< 0.95	< 0.59
1,1,2-Trichloroethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,1-Dichloroethene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,2,4-Trichlorobenzene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,2-Dibromo-3-chloropropane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,2-Dibromoethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,2-Dichlorobenzene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,2-Dichloroethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,2-Dichloropropane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,3-Dichlorobenzene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
1,4-Dichlorobenzene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
2-Butanone (MEK)	0.69	0.72	0.64	< 0.23	< 0.95	< 0.59
4-Methyl-2-Pentanone	< 0.56	< 0.55	< 0.48	< 0.23	< 0.95	< 0.59
Acetone	0.73 J	0.76 J	0.68 J	< 0.46	< 1.9	< 1.2
Benzene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Bromodichloromethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Bromoform	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Bromomethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Carbon Disulfide	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Carbon Tetrachloride	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
CFC-11	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
CFC-12	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Chlorobenzene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Chlorodibromomethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Chloroethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Chloroform	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Chloromethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
cis-1,2-Dichloroethene	0.84	0.3	0.15 J	< 0.11	8.5	0.26 J
cis-1,3-Dichloropropene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Cyclohexane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Dichloromethane	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Ethylbenzene	0.11 J	< 0.27	< 0.24	< 0.11	5.1	1.4
Isopropylbenzene	< 0.28	< 0.27	< 0.24	< 0.11	0.42 J	0.14 J
Methyl Acetate	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Methyl N-Butyl Ketone (2-Hexanone)	< 0.56	< 0.55	< 0.48	< 0.23	< 0.95	< 0.59
Methylcyclohexane	< 0.28	< 0.27	< 0.24	< 0.11	1.1	0.3
Methyl-tert-butylether	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Styrene (Monomer)	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Tetrachloroethene	< 0.28	< 0.27	< 0.24	< 0.11	0.22 J	< 0.29
Toluene	4.6	< 0.27	< 0.24	< 0.11	140	25
Total Xylenes	1.1	< 0.27	< 0.24	< 0.11	24	6.9
trans-1,2-Dichloroethene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
trans-1,3-Dichloropropene	< 0.28	< 0.27	< 0.24	< 0.11	< 0.48	< 0.29
Trichloroethene	8.4	2	< 0.24	< 0.11	100	2.5
Vinyl chloride	0.08 J	< 0.27	< 0.24	< 0.11	1.7	< 0.29
TVOCs	17	3.8	1.5	0	280	37

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID:	P-9-14	P-9-14	H-5-14	H-5-14	M-9-14	M-9-14	M-9-14
Sample Midpoint Depth (ft):	32	44	46	50	24	46	57
Date Sampled:	11/6/2014	11/7/2014	11/7/2014	11/7/2014	11/5/2014	11/5/2014	11/5/2014
Sampled ID:	P-9-14_32	P-9-14_44	H-5-14_46	H-5-14_50	M-9-14_24	M-9-14_46	M-9-14_57
CONSTITUENT (unit in mg/kg)							
1,1,1-Trichloroethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,1,2,2-Tetrachloroethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.57	< 0.41	< 0.44	< 0.5	< 0.59	< 0.21	< 0.26
1,1,2-Trichloroethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,1-Dichloroethene	< 0.28	0.11 J	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,2,4-Trichlorobenzene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,2-Dibromo-3-chloropropane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,2-Dibromoethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,2-Dichlorobenzene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,2-Dichloroethane	< 0.28	0.05 J	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,2-Dichloropropane	< 0.28	0.097 J	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,3-Dichlorobenzene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
1,4-Dichlorobenzene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
2-Butanone (MEK)	< 0.57	0.65	0.53	0.61	< 0.59	< 0.21	< 0.26
4-Methyl-2-Pentanone	< 0.57	0.2 J	< 0.44	< 0.5	< 0.59	< 0.21	< 0.26
Acetone	< 1.1	0.7 J	0.61 J	0.72 J	< 1.2	< 0.43	< 0.51
Benzene	< 0.28	0.021 J	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Bromodichloromethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Bromoform	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Bromomethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Carbon Disulfide	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Carbon Tetrachloride	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
CFC-11	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
CFC-12	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Chlorobenzene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Chlorodibromomethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Chloroethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Chloroform	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Chloromethane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
cis-1,2-Dichloroethene	< 0.28	45	0.84	0.86	< 0.29	1	0.29
cis-1,3-Dichloropropene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Cyclohexane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Dichloromethane	< 0.28	0.15 J	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Ethylbenzene	< 0.28	< 0.2	0.12 J	< 0.25	< 0.29	0.16	< 0.13
Isopropylbenzene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Methyl Acetate	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Methyl N-Butyl Ketone (2-Hexanone)	< 0.57	< 0.41	< 0.44	< 0.5	< 0.59	< 0.21	< 0.26
Methylcyclohexane	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	0.041 J	< 0.13
Methyl-tert-butylether	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Styrene (Monomer)	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Tetrachloroethene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Toluene	< 0.28	10	3.4	< 0.25	< 0.29	3.5	< 0.13
Total Xylenes	< 0.28	< 0.2	0.72	< 0.25	< 0.29	0.77	< 0.13
trans-1,2-Dichloroethene	< 0.28	0.12 J	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
trans-1,3-Dichloropropene	< 0.28	< 0.2	< 0.22	< 0.25	< 0.29	< 0.11	< 0.13
Trichloroethene	< 0.28	0.15 J	10	6.2	< 0.29	0.55	0.59
Vinyl chloride	< 0.28	0.3	< 0.22	< 0.25	< 0.29	0.16	< 0.13
TVOCs	0	58	16	8.4	0	6.2	0.88

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Sample Midpoint Depth (ft): Date Sampled: Sampled ID:	B-34-14 1.5 11/17/2014 B-34-14_1.5	B-34-14 4.5 11/17/2014 B-34-14_4.5	B-34-14 7.5 11/17/2014 B-34-14_7.5	B-34-14 10.5 11/17/2014 B-34-14_10.5	B-34-14 13.5 11/17/2014 B-34-14_13.5	B-34-14 16.5 11/17/2014 B-34-14_16.5
CONSTITUENT (unit in mg/kg)							
1,1,1-Trichloroethane	< 0.006	0.005 J	0.18 J	< 0.23	< 0.27	< 0.23	< 0.23
1,1,2,2-Tetrachloroethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.011	< 0.011	< 1.7	< 0.45	< 0.54	< 0.46	< 0.46
1,1,2-Trichloroethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,1-Dichloroethene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,2,4-Trichlorobenzene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,2-Dibromo-3-chloropropane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,2-Dibromoethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,2-Dichlorobenzene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,2-Dichloroethane	< 0.006	0.002 J	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,2-Dichloropropane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,3-Dichlorobenzene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
1,4-Dichlorobenzene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
2-Butanone (MEK)	< 0.011	< 0.011	< 1.7	< 0.45	< 0.54	< 0.46	< 0.46
4-Methyl-2-Pentanone	< 0.011	< 0.011	< 1.7	< 0.45	< 0.54	< 0.46	< 0.46
Acetone	0.068	0.025	< 3.4	< 0.91	< 1.1	< 0.92	< 0.92
Benzene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Bromodichloromethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Bromoform	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Bromomethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Carbon Disulfide	< 0.006	0.003 J	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Carbon Tetrachloride	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
CFC-11	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
CFC-12	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Chlorobenzene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Chlorodibromomethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Chloroethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Chloroform	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Chloromethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
cis-1,2-Dichloroethene	0.01	0.069	9.6	0.1 J	< 0.27	0.11 J	0.11 J
cis-1,3-Dichloropropene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Cyclohexane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Dichloromethane	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Ethylbenzene	< 0.006	0.004 J	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Isopropylbenzene	< 0.006	< 0.006	0.2 J	< 0.23	< 0.27	< 0.23	< 0.23
Methyl Acetate	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Methyl N-Butyl Ketone (2-Hexanone)	< 0.011	< 0.011	< 1.7	< 0.45	< 0.54	< 0.46	< 0.46
Methylcyclohexane	< 0.006	0.002 J	2.1	0.047 J	< 0.27	< 0.23	< 0.23
Methyl-tert-butylether	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Styrene (Monomer)	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Tetrachloroethene	< 0.006	0.003 J	2.4	0.067 J	< 0.27	< 0.23	< 0.23
Toluene	0.005 J	0.04	3	0.052 J	< 0.27	< 0.23	< 0.23
Total Xylenes	< 0.006	0.024	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
trans-1,2-Dichloroethene	< 0.006	0.002 J	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
trans-1,3-Dichloropropene	< 0.006	< 0.006	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
Trichloroethene	0.014	0.069	200	1.5	0.37	0.91	0.91
Vinyl chloride	< 0.006	0.004 J	< 0.85	< 0.23	< 0.27	< 0.23	< 0.23
TVOCs	0.10	0.27	220	1.8	0.37	1.0	1.0

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Sample Midpoint Depth (ft): Date Sampled: Sampled ID:	B-34-14 19.5 11/17/2014 B-34-14_19.5	B-34-14 22.5 11/17/2014 B-34-14_22.5	B-34-14 25.5 11/17/2014 B-34-14_25.5	B-34-14 28.5 11/17/2014 B-34-14_28.5	B-34-14 31.5 11/17/2014 B-34-14_31.5	B-34-14 34.5 11/17/2014 B-34-14_34.5
CONSTITUENT (unit in mg/kg)							
1,1,1-Trichloroethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,1,2,2-Tetrachloroethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.58	< 0.5	< 0.47	< 0.53	< 0.45	< 0.42	
1,1,2-Trichloroethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,1-Dichloroethene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,2,4-Trichlorobenzene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,2-Dibromo-3-chloropropane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,2-Dibromoethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,2-Dichlorobenzene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,2-Dichloroethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,2-Dichloropropane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,3-Dichlorobenzene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
1,4-Dichlorobenzene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
2-Butanone (MEK)	< 0.58	< 0.5	< 0.47	< 0.53	< 0.45	< 0.42	
4-Methyl-2-Pentanone	< 0.58	< 0.5	< 0.47	< 0.53	< 0.45	< 0.42	
Acetone	< 1.2	< 1	< 0.94	< 1.1	< 0.89	< 0.85	
Benzene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Bromodichloromethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Bromoform	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Bromomethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Carbon Disulfide	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Carbon Tetrachloride	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
CFC-11	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
CFC-12	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Chlorobenzene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Chlorodibromomethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Chloroethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Chloroform	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Chloromethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
cis-1,2-Dichloroethene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
cis-1,3-Dichloropropene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Cyclohexane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Dichloromethane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Ethylbenzene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	3.2	
Isopropylbenzene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	0.41	
Methyl Acetate	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Methyl N-Butyl Ketone (2-Hexanone)	< 0.58	< 0.5	< 0.47	< 0.53	< 0.45	< 0.42	
Methylcyclohexane	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	6.8	
Methyl-tert-butylether	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Styrene (Monomer)	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Tetrachloroethene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Toluene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Total Xylenes	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	0.69	
trans-1,2-Dichloroethene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
trans-1,3-Dichloropropene	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Trichloroethene	0.065 J	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
Vinyl chloride	< 0.29	< 0.25	< 0.23	< 0.26	< 0.22	< 0.21	
TVOCs	0.065	0	0	0	0	11	

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Sample Midpoint Depth (ft): Date Sampled: Sampled ID:	B-34-14 37.5 11/17/2014 B-34-14_37.5	B-34-14 40.5 11/17/2014 B-34-14_40.5	B-34-14 43.5 11/17/2014 B-34-14_43.5	B-34-14 46.5 11/17/2014 B-34-14_46.5	B-34-14 49.5 11/17/2014 B-34-14_49.5	B-34-14 52.5 11/17/2014 B-34-14_52.5
CONSTITUENT (unit in mg/kg)							
1,1,1-Trichloroethane	< 0.25	< 0.004	< 0.42	0.19 J	1 J	< 0.29	
1,1,2,2-Tetrachloroethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.51	< 0.008	< 0.84	< 0.79	< 2.1	< 0.58	
1,1,2-Trichloroethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
1,1-Dichloroethene	< 0.25	0.003 J	0.26 J	< 0.39	< 1	< 0.29	
1,2,4-Trichlorobenzene	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
1,2-Dibromo-3-chloropropane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
1,2-Dibromoethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
1,2-Dichlorobenzene	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
1,2-Dichloroethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
1,2-Dichloropropane	< 0.25	< 0.004	0.098 J	< 0.39	< 1	< 0.29	
1,3-Dichlorobenzene	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
1,4-Dichlorobenzene	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
2-Butanone (MEK)	< 0.51	< 0.008	< 0.84	< 0.79	< 2.1	< 0.58	
4-Methyl-2-Pentanone	< 0.51	< 0.008	< 0.84	< 0.79	< 2.1	< 0.58	
Acetone	< 1	0.011 J	< 1.7	< 1.6	< 4.1	< 1.2	
Benzene	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Bromodichloromethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Bromoform	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Bromomethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Carbon Disulfide	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Carbon Tetrachloride	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
CFC-11	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
CFC-12	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Chlorobenzene	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Chlorodibromomethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Chloroethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Chloroform	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Chloromethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
cis-1,2-Dichloroethene	< 0.25	0.87	83	< 0.39	33	6.3	
cis-1,3-Dichloropropene	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Cyclohexane	< 0.25	0.006	< 0.42	4.4	0.28 J	< 0.29	
Dichloromethane	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Ethylbenzene	< 0.25	0.19	0.36 J	21	29	2	
Isopropylbenzene	< 0.25	0.019	< 0.42	3.2	2.2	0.14 J	
Methyl Acetate	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Methyl N-Butyl Ketone (2-Hexanone)	< 0.51	< 0.008	< 0.84	< 0.79	< 2.1	< 0.58	
Methylcyclohexane	< 0.25	0.24	0.19 J	90	23	< 0.29	
Methyl-tert-butylether	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Styrene (Monomer)	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Tetrachloroethene	< 0.25	< 0.004	< 0.42	< 0.39	2	0.089 J	
Toluene	< 0.25	0.43	44	19	290	20	
Total Xylenes	< 0.25	0.43	1.3	96	130	10	
trans-1,2-Dichloroethene	< 0.25	0.001 J	0.21 J	< 0.39	< 1	< 0.29	
trans-1,3-Dichloropropene	< 0.25	< 0.004	< 0.42	< 0.39	< 1	< 0.29	
Trichloroethene	< 0.25	0.017	25	< 0.39	11	0.88	
Vinyl chloride	< 0.25	0.031	0.59	0.74	< 1	< 0.29	
TVOCs	0	2.3	160	240	520	39	

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Sample Midpoint Depth (ft): Date Sampled: Sampled ID:	B-34-14 55.5 11/17/2014 B-34-14_55.5	B-34-14 55.5 11/17/2014 REP111714DM2	B-34-14 58.5 11/17/2014 B-34-14_58.5	B-60-14 1.5 11/17/2014 B-60-14_1.5	B-60-14 4.5 11/17/2014 B-60-14_4.5	B-60-14 7.5 11/17/2014 B-60-14_7.5
CONSTITUENT (unit in mg/kg)							
1,1,1-Trichloroethane	< 0.24	0.001 J	< 0.27	< 0.005	< 0.18	< 0.24	
1,1,2,2-Tetrachloroethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.48	< 0.011	< 0.54	< 0.009	< 0.35	< 0.48	
1,1,2-Trichloroethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,1-Dichloroethene	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,2,4-Trichlorobenzene	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,2-Dibromo-3-chloropropane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,2-Dibromoethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,2-Dichlorobenzene	< 0.24	< 0.005	< 0.27	0.001 J	0.18	0.43	
1,2-Dichloroethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,2-Dichloropropane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,3-Dichlorobenzene	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
1,4-Dichlorobenzene	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	0.078 J	
2-Butanone (MEK)	< 0.48	< 0.011	< 0.54	< 0.009	< 0.35	< 0.48	
4-Methyl-2-Pentanone	< 0.48	< 0.011	< 0.54	< 0.009	< 0.35	< 0.48	
Acetone	< 0.95	< 0.022	< 1.1	0.021	< 0.7	< 0.95	
Benzene	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Bromodichloromethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Bromoform	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Bromomethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Carbon Disulfide	< 0.24	< 0.005	< 0.27	0.001 J	< 0.18	< 0.24	
Carbon Tetrachloride	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
CFC-11	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
CFC-12	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Chlorobenzene	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Chlorodibromomethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Chloroethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Chloroform	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Chloromethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
cis-1,2-Dichloroethene	0.84	0.2	0.34	0.038	0.11 J	0.16 J	
cis-1,3-Dichloropropene	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Cyclohexane	< 0.24	< 0.005	0.062 J	< 0.005	0.1 J	0.44	
Dichloromethane	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Ethylbenzene	0.12 J	0.064	0.36	0.002 J	1.5	3.4	
Isopropylbenzene	< 0.24	0.006	0.29	< 0.005	0.32	0.61	
Methyl Acetate	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Methyl N-Butyl Ketone (2-Hexanone)	< 0.48	< 0.011	< 0.54	< 0.009	< 0.35	< 0.48	
Methylcyclohexane	0.13 J	0.053	7.2	0.003 J	3.3	12	
Methyl-tert-butylether	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Styrene (Monomer)	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Tetrachloroethene	< 0.24	0.006	< 0.27	< 0.005	< 0.18	< 0.24	
Toluene	1.2	0.86	0.16 J	0.025	12	49	
Total Xylenes	0.51	0.3	0.12 J	0.007	7.5	18	
trans-1,2-Dichloroethene	< 0.24	< 0.005	< 0.27	0.002 J	< 0.18	< 0.24	
trans-1,3-Dichloropropene	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
Trichloroethene	0.082 J	0.019	0.056 J	0.022	0.053 J	0.062 J	
Vinyl chloride	< 0.24	< 0.005	< 0.27	< 0.005	< 0.18	< 0.24	
TVOCs	2.9	1.5	8.6	0.12	25	84	

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID:	B-60-14	B-60-14	B-60-14	B-60-14	B-60-14	B-60-14
Sample Midpoint Depth (ft):	10.5	13.5	16.5	19.5	19.5	22.5
Date Sampled:	11/17/2014	11/17/2014	11/17/2014	11/17/2014	11/17/2014	11/17/2014
Sampled ID:	B-60-14_10.5	B-60-14_13.5	B-60-14_16.5	B-60-14_19.5	REP111714DM3	B-60-14_22.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,1,2,2-Tetrachloroethane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.46	< 0.008	< 0.47	< 0.009	< 0.009	< 0.009
1,1,2-Trichloroethane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,1-Dichloroethene	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,2,4-Trichlorobenzene	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,2-Dibromo-3-chloropropane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,2-Dibromoethane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,2-Dichlorobenzene	0.47	0.036	0.51	< 0.004	< 0.004	< 0.005
1,2-Dichloroethane	< 0.23	< 0.004	< 0.24	0.0009 J	< 0.004	< 0.005
1,2-Dichloropropane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,3-Dichlorobenzene	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
1,4-Dichlorobenzene	0.11 J	0.004	< 0.24	< 0.004	< 0.004	< 0.005
2-Butanone (MEK)	< 0.46	0.008	< 0.47	< 0.009	< 0.009	0.018
4-Methyl-2-Pentanone	< 0.46	< 0.008	< 0.47	< 0.009	< 0.009	< 0.009
Acetone	< 0.92	0.029	< 0.95	< 0.017	0.007 J	0.12
Benzene	0.056 J	0.008	< 0.24	< 0.004	< 0.004	< 0.005
Bromodichloromethane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Bromoform	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Bromomethane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Carbon Disulfide	< 0.23	0.004	< 0.24	< 0.004	< 0.004	< 0.005
Carbon Tetrachloride	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
CFC-11	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
CFC-12	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Chlorobenzene	0.36	0.033	< 0.24	< 0.004	< 0.004	< 0.005
Chlorodibromomethane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Chloroethane	< 0.23	0.006	< 0.24	< 0.004	< 0.004	< 0.005
Chloroform	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Chloromethane	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
cis-1,2-Dichloroethene	< 0.23	0.009	< 0.24	0.012	0.008	0.005
cis-1,3-Dichloropropene	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Cyclohexane	0.098 J	0.039	< 0.24	< 0.004	< 0.004	< 0.005
Dichloromethane	< 0.23	< 0.004	< 0.24	0.007	< 0.004	< 0.005
Ethylbenzene	1.6	0.2	0.12 J	< 0.004	< 0.004	< 0.005
Isopropylbenzene	0.12 J	0.02	0.12 J	< 0.004	< 0.004	< 0.005
Methyl Acetate	0.53	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Methyl N-Butyl Ketone (2-Hexanone)	< 0.46	< 0.008	< 0.47	< 0.009	< 0.009	< 0.009
Methylcyclohexane	1.6	0.26	0.2 J	< 0.004	< 0.004	< 0.005
Methyl-tert-butylether	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Styrene (Monomer)	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Tetrachloroethene	< 0.23	0.001 J	< 0.24	< 0.004	< 0.004	0.003 J
Toluene	1.4	0.16	0.27	0.001 J	0.002 J	< 0.005
Total Xylenes	7.8	1.3	0.41	0.001 J	0.001 J	0.001 J
trans-1,2-Dichloroethene	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
trans-1,3-Dichloropropene	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
Trichloroethene	< 0.23	0.011	0.076 J	0.034	0.018	0.063
Vinyl chloride	< 0.23	< 0.004	< 0.24	< 0.004	< 0.004	< 0.005
TVOCs	14	2.1	2.7	0.063	0.041	0.21

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: Sample Midpoint Depth (ft): Date Sampled: Sampled ID:	B-60-14 25.5 11/17/2014 B-60-14_25.5	B-60-14 28.5 11/17/2014 B-60-14_28.5	VP-27-14 1.5 11/17/2014 VP-27-14_1.5	VP-27-14 1.5 11/17/2014 REP111714DM1	VP-27-14 4.5 11/17/2014 VP-27-14_4.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.004	< 0.004	< 0.003	< 0.004	0.48	
1,1,2,2-Tetrachloroethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.008	< 0.009	< 0.005	< 0.008	< 0.47	
1,1,2-Trichloroethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,1-Dichloroethene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,2,4-Trichlorobenzene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,2-Dibromo-3-chloropropane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,2-Dibromoethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,2-Dichlorobenzene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,2-Dichloroethane	< 0.004	< 0.004	< 0.003	< 0.004	0.089 J	
1,2-Dichloropropane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,3-Dichlorobenzene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
1,4-Dichlorobenzene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
2-Butanone (MEK)	< 0.008	< 0.009	< 0.005	< 0.008	< 0.47	
4-Methyl-2-Pentanone	< 0.008	< 0.009	< 0.005	< 0.008	< 0.47	
Acetone	< 0.016	< 0.017	0.039	0.052	< 0.93	
Benzene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Bromodichloromethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Bromoform	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Bromomethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Carbon Disulfide	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Carbon Tetrachloride	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
CFC-11	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
CFC-12	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Chlorobenzene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Chlorodibromomethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Chloroethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Chloroform	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Chloromethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
cis-1,2-Dichloroethene	0.001 J	< 0.004	0.0007 J	0.001 J	2.8	
cis-1,3-Dichloropropene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Cyclohexane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Dichloromethane	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Ethylbenzene	0.002 J	< 0.004	< 0.003	< 0.004	< 0.23	
Isopropylbenzene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Methyl Acetate	< 0.004	< 0.004	< 0.003	< 0.004	0.51	
Methyl N-Butyl Ketone (2-Hexanone)	< 0.008	< 0.009	< 0.005	< 0.008	< 0.47	
Methylcyclohexane	0.01	< 0.004	< 0.003	< 0.004	< 0.23	
Methyl-tert-butylether	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Styrene (Monomer)	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Tetrachloroethene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Toluene	0.011	0.001 J	< 0.003	0.001 J	0.16 J	
Total Xylenes	0.008	< 0.004	< 0.003	< 0.004	< 0.23	
trans-1,2-Dichloroethene	< 0.004	< 0.004	< 0.003	< 0.004	0.64	
trans-1,3-Dichloropropene	< 0.004	< 0.004	< 0.003	< 0.004	< 0.23	
Trichloroethene	0.002 J	< 0.004	0.005	0.005	1.9	
Vinyl chloride	< 0.004	< 0.004	< 0.003	< 0.004	0.94	
TVOCs	0.034	0.001	0.045	0.059	8.2	

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: VP-27-14	VP-27-14	VP-27-14	VP-27-14	VP-27-14	VP-27-14
Sample Midpoint Depth (ft):	7.5	10.5	13.5	16.5	19.5	22.5
Date Sampled:	11/17/2014	11/17/2014	11/17/2014	11/17/2014	11/17/2014	11/17/2014
Sampled ID:	VP-27-14_7.5	VP-27-14_10.5	VP-27-14_13.5	VP-27-14_16.5	VP-27-14_19.5	VP-27-14_22.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	0.73	< 0.22	< 0.25	0.35	< 0.005	0.001 J
1,1,2,2-Tetrachloroethane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.44	< 0.43	< 0.5	< 0.48	< 0.009	< 0.009
1,1,2-Trichloroethane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,1-Dichloroethene	0.044 J	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,2,4-Trichlorobenzene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,2-Dibromo-3-chloropropane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,2-Dibromoethane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,2-Dichlorobenzene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,2-Dichloroethane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,2-Dichloropropane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,3-Dichlorobenzene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
1,4-Dichlorobenzene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
2-Butanone (MEK)	< 0.44	< 0.43	< 0.5	< 0.48	< 0.009	< 0.009
4-Methyl-2-Pentanone	< 0.44	< 0.43	< 0.5	< 0.48	< 0.009	< 0.009
Acetone	< 0.87	< 0.86	< 1	< 0.95	0.022	0.019
Benzene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Bromodichloromethane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Bromoform	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Bromomethane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Carbon Disulfide	< 0.22	< 0.22	< 0.25	< 0.24	0.003 J	0.001 J
Carbon Tetrachloride	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
CFC-11	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
CFC-12	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Chlorobenzene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Chlorodibromomethane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Chloroethane	0.089 J	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Chloroform	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Chloromethane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
cis-1,2-Dichloroethene	0.23	3.7	0.07 J	2.6	0.046	0.096
cis-1,3-Dichloropropene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Cyclohexane	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Dichloromethane	< 0.22	< 0.22	< 0.25	0.12 J	< 0.005	< 0.005
Ethylbenzene	< 0.22	0.072 J	< 0.25	0.5	0.001 J	< 0.005
Isopropylbenzene	< 0.22	0.12 J	< 0.25	0.079 J	< 0.005	< 0.005
Methyl Acetate	0.16 J	< 0.22	< 0.25	1.2	< 0.005	< 0.005
Methyl N-Butyl Ketone (2-Hexanone)	< 0.44	< 0.43	< 0.5	< 0.48	< 0.009	< 0.009
Methylcyclohexane	0.059 J	0.94	< 0.25	0.31	0.004 J	0.002 J
Methyl-tert-butylether	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Styrene (Monomer)	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Tetrachloroethene	< 0.22	0.18 J	< 0.25	0.068 J	0.039	0.059
Toluene	0.2 J	1.5	0.056 J	11	0.017	0.011
Total Xylenes	< 0.22	0.18 J	< 0.25	2.4	0.004 J	0.002 J
trans-1,2-Dichloroethene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
trans-1,3-Dichloropropene	< 0.22	< 0.22	< 0.25	< 0.24	< 0.005	< 0.005
Trichloroethene	1.1	1.4	0.41	2	0.5	0.51
Vinyl chloride	0.11 J	0.2 J	< 0.25	0.38	< 0.005	< 0.005
TVOCs	4.1	8.4	0.54	22	0.64	0.70

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: VP-27-14	VP-27-14	VP-27-14	VP-27-14	VP-27-14	VP-27-14
Sample Midpoint Depth (ft):	25.5	28.5	31.5	34.5	37.5	40.5
Date Sampled:	11/17/2014	11/17/2014	11/17/2014	11/17/2014	11/17/2014	11/17/2014
Sampled ID:	VP-27-14_25.5	VP-27-14_28.5	VP-27-14_31.5	VP-27-14_34.5	VP-27-14_37.5	VP-27-14_40.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,1,2,2-Tetrachloroethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.011	< 0.01	< 0.48	< 0.009	< 0.42	< 0.41
1,1,2-Trichloroethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,1-Dichloroethene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,2,4-Trichlorobenzene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,2-Dibromo-3-chloropropane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,2-Dibromoethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,2-Dichlorobenzene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,2-Dichloroethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,2-Dichloropropane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,3-Dichlorobenzene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
1,4-Dichlorobenzene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
2-Butanone (MEK)	< 0.011	< 0.01	< 0.48	< 0.009	< 0.42	< 0.41
4-Methyl-2-Pentanone	< 0.011	< 0.01	< 0.48	< 0.009	< 0.42	< 0.41
Acetone	0.013 J	0.014 J	< 0.96	0.016 J	< 0.84	< 0.82
Benzene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Bromodichloromethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Bromoform	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Bromomethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Carbon Disulfide	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Carbon Tetrachloride	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
CFC-11	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
CFC-12	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Chlorobenzene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Chlorodibromomethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Chloroethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Chloroform	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Chloromethane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
cis-1,2-Dichloroethene	0.002 J	0.002 J	< 0.24	0.002 J	< 0.21	0.47
cis-1,3-Dichloropropene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Cyclohexane	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Dichloromethane	< 0.005	0.004 J	< 0.24	< 0.005	< 0.21	< 0.21
Ethylbenzene	< 0.005	< 0.005	< 0.24	< 0.005	2.2	0.29
Isopropylbenzene	< 0.005	< 0.005	< 0.24	< 0.005	0.31	< 0.21
Methyl Acetate	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Methyl N-Butyl Ketone (2-Hexanone)	< 0.011	< 0.01	< 0.48	< 0.009	< 0.42	< 0.41
Methylcyclohexane	< 0.005	< 0.005	< 0.24	< 0.005	0.14 J	< 0.21
Methyl-tert-butylether	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Styrene (Monomer)	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Tetrachloroethene	0.009	0.006	< 0.24	0.002 J	< 0.21	< 0.21
Toluene	0.012	0.004 J	< 0.24	0.004 J	0.41	6.2
Total Xylenes	0.002 J	< 0.005	< 0.24	0.0009 J	19	1.8
trans-1,2-Dichloroethene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
trans-1,3-Dichloropropene	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	< 0.21
Trichloroethene	0.014	0.01	0.12 J	0.007	< 0.21	0.36
Vinyl chloride	< 0.005	< 0.005	< 0.24	< 0.005	< 0.21	0.042 J
TVOCs	0.052	0.040	0.12	0.032	22	9.2

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: VP-27-14	VP-27-14	VP-27-14	VP-27-14	VP-27-14	VP-27-14
Sample Midpoint Depth (ft):	43.5	46.5	49.5	52.5	55.5	58.5
Date Sampled:	11/17/2014	11/17/2014	11/17/2014	11/17/2014	11/17/2014	11/17/2014
Sampled ID:	VP-27-14_43.5	VP-27-14_46.5	VP-27-14_49.5	VP-27-14_52.5	VP-27-14_55.5	VP-27-14_58.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.43	41	< 0.28	< 0.2	0.002 J	0.005
1,1,2,2-Tetrachloroethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.86	< 41	< 0.56	< 0.4	< 0.009	< 0.008
1,1,2-Trichloroethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
1,1-Dichloroethene	< 0.43	4.1 J	< 0.28	< 0.2	< 0.004	0.001 J
1,2,4-Trichlorobenzene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
1,2-Dibromo-3-chloropropane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
1,2-Dibromoethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
1,2-Dichlorobenzene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
1,2-Dichloroethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	0.001 J
1,2-Dichloropropane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
1,3-Dichlorobenzene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
1,4-Dichlorobenzene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
2-Butanone (MEK)	< 0.86	< 41	< 0.56	< 0.4	< 0.009	< 0.008
4-Methyl-2-Pentanone	< 0.86	< 41	< 0.56	< 0.4	< 0.009	0.005 J
Acetone	< 1.7	< 82	< 1.1	< 0.79	0.01 J	0.017 J
Benzene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Bromodichloromethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Bromoform	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Bromomethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Carbon Disulfide	< 0.43	< 20	< 0.28	< 0.2	< 0.004	0.002 J
Carbon Tetrachloride	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
CFC-11	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
CFC-12	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Chlorobenzene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Chlorodibromomethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Chloroethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Chloroform	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Chloromethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
cis-1,2-Dichloroethene	11	92	0.38	5.7	0.18 J	3.1
cis-1,3-Dichloropropene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Cyclohexane	< 0.43	< 20	< 0.28	< 0.2	0.002 J	0.004
Dichloromethane	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Ethylbenzene	1.2	41	1.7	0.12 J	0.046	0.13
Isopropylbenzene	< 0.43	< 20	0.15 J	< 0.2	0.003 J	0.011
Methyl Acetate	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Methyl N-Butyl Ketone (2-Hexanone)	< 0.86	< 41	< 0.56	< 0.4	< 0.009	< 0.008
Methylcyclohexane	0.2 J	39	0.58	0.06 J	0.062	0.13
Methyl-tert-butylether	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Styrene (Monomer)	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Tetrachloroethene	< 0.43	7.7 J	< 0.28	< 0.2	< 0.004	< 0.004
Toluene	51	1400	17	5.2	0.29	3.2
Total Xylenes	5.8	190	9.1	0.56	0.2	0.56
trans-1,2-Dichloroethene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
trans-1,3-Dichloropropene	< 0.43	< 20	< 0.28	< 0.2	< 0.004	< 0.004
Trichloroethene	25	3000	0.14 J	< 0.2	0.002 J	0.021
Vinyl chloride	0.3 J	< 20	< 0.28	0.11 J	0.026	0.036
TVOCs	95	4800	29	12	0.83	7.2

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Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14
Sample Midpoint Depth (ft):	1.5	4.5	7.5	10.5	13.5	16.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sampled ID:	nN-9-14_1.5	nN-9-14_4.5	nN-9-14_7.5	nN-9-14_10.5	nN-9-14_13.5	nN-9-14_16.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.22	0.22 J	0.15 J	1.2 J	32	< 0.23
1,1,2,2-Tetrachloroethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.44	< 0.46	< 0.41	< 5.1	< 10	< 0.47
1,1,2-Trichloroethane	< 0.22	< 0.23	< 0.2	< 2.6	2.9 J	< 0.23
1,1-Dichloroethene	< 0.22	< 0.23	0.092 J	2.5 J	2.4 J	< 0.23
1,2,4-Trichlorobenzene	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
1,2-Dibromo-3-chloropropane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
1,2-Dibromoethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
1,2-Dichlorobenzene	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
1,2-Dichloroethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
1,2-Dichloropropane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
1,3-Dichlorobenzene	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
1,4-Dichlorobenzene	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
2-Butanone (MEK)	0.54	0.51	0.59	< 5.1	< 10	0.67
4-Methyl-2-Pentanone	< 0.44	< 0.46	< 0.41	< 5.1	< 10	< 0.47
Acetone	0.57 J	0.6 J	0.63 J	< 10	< 20	0.68 J
Benzene	< 0.22	< 0.23	0.024 J	< 2.6	< 5	< 0.23
Bromodichloromethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Bromofom	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Bromomethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Carbon Disulfide	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Carbon Tetrachloride	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
CFC-11	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
CFC-12	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Chlorobenzene	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Chlorodibromomethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Chloroethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Chloroform	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Chloromethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
cis-1,2-Dichloroethene	< 0.22	0.22 J	34	640	580	1.7
cis-1,3-Dichloropropene	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Cyclohexane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Dichloromethane	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Ethylbenzene	< 0.22	< 0.23	0.28	11	120	0.09 J
Isopropylbenzene	< 0.22	0.071 J	0.32	1.1 J	13	< 0.23
Methyl Acetate	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Methyl N-Butyl Ketone (2-Hexanone)	< 0.44	< 0.46	< 0.41	< 5.1	< 10	< 0.47
Methylcyclohexane	< 0.22	0.14 J	0.4	4.2	10	< 0.23
Methyl-tert-butylether	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Styrene (Monomer)	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Tetrachloroethene	< 0.22	0.18 J	0.36	0.7 J	13	0.16 J
Toluene	< 0.22	0.18 J	1.8	210	780	0.72
Total Xylenes	< 0.22	0.3	2	48	700	0.6
trans-1,2-Dichloroethene	< 0.22	0.098 J	0.098 J	< 2.6	< 5	< 0.23
trans-1,3-Dichloropropene	< 0.22	< 0.23	< 0.2	< 2.6	< 5	< 0.23
Trichloroethene	< 0.22	0.28	0.14 J	1.1 J	2300	7.8
Vinyl chloride	< 0.22	0.7	12	37	6.2	< 0.23
TVOCs	1.1	3.7	54	960	4600	12

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Boring ID:	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14
Sample Midpoint Depth (ft):	19.5	22.5	25.5	28.5	37.5	40.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sampled ID:	nN-9-14_19.5	nN-9-14_22.5	nN-9-14_25.5	nN-9-14_28.5	nN-9-14_37.5	nN-9-14_40.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	9.2
1,1,2,2-Tetrachloroethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.54	< 0.46	< 0.63	< 0.57	< 0.5	< 4.2
1,1,2-Trichloroethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,1-Dichloroethene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	0.92 J
1,2,4-Trichlorobenzene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,2-Dibromo-3-chloropropane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,2-Dibromoethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,2-Dichlorobenzene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,2-Dichloroethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,2-Dichloropropane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,3-Dichlorobenzene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
1,4-Dichlorobenzene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
2-Butanone (MEK)	0.69	0.62	0.8	0.77	0.57	< 4.2
4-Methyl-2-Pentanone	< 0.54	< 0.46	< 0.63	< 0.57	< 0.5	< 4.2
Acetone	0.75 J	0.68 J	0.9 J	0.87 J	0.62 J	< 8.4
Benzene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Bromodichloromethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Bromofor	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Bromomethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Carbon Disulfide	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Carbon Tetrachloride	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
CFC-11	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
CFC-12	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Chlorobenzene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Chlorodibromomethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Chloroethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Chloroform	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Chloromethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
cis-1,2-Dichloroethene	< 0.27	0.05 J	< 0.31	0.11 J	< 0.25	56
cis-1,3-Dichloropropene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Cyclohexane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	1 J
Dichloromethane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Ethylbenzene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	12
Isopropylbenzene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	1.1 J
Methyl Acetate	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Methyl N-Butyl Ketone (2-Hexanone)	< 0.54	< 0.46	< 0.63	< 0.57	< 0.5	< 4.2
Methylcyclohexane	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	14
Methyl-tert-butylether	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Styrene (Monomer)	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Tetrachloroethene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	5.2
Toluene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	390
Total Xylenes	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	57
trans-1,2-Dichloroethene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
trans-1,3-Dichloropropene	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	< 2.1
Trichloroethene	< 0.27	0.049 J	< 0.31	< 0.28	< 0.25	830
Vinyl chloride	< 0.27	< 0.23	< 0.31	< 0.28	< 0.25	1.1 J
TVOCs	1.4	1.4	1.7	1.8	1.2	1400

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14	nN-9-14
Sample Midpoint Depth (ft):	43.5	46.5	49.5	52.5	55.5	58.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sampled ID:	nN-9-14_43.5	nN-9-14_46.5	nN-9-14_49.5	nN-9-14_52.5	nN-9-14_55.5	nN-9-14_58.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	0.5	14	0.13 J	< 0.21	< 0.28	< 0.25
1,1,2,2-Tetrachloroethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.46	< 1.6	< 0.93	< 0.41	< 0.57	< 0.5
1,1,2-Trichloroethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,1-Dichloroethene	0.14 J	1.4	< 0.46	< 0.21	< 0.28	< 0.25
1,2,4-Trichlorobenzene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,2-Dibromo-3-chloropropane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,2-Dibromoethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,2-Dichlorobenzene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,2-Dichloroethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,2-Dichloropropane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,3-Dichlorobenzene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
1,4-Dichlorobenzene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
2-Butanone (MEK)	0.56	< 1.6	0.58 J	0.5	0.67	0.59
4-Methyl-2-Pentanone	< 0.46	< 1.6	< 0.93	< 0.41	< 0.57	< 0.5
Acetone	0.55 J	< 3.2	< 1.9	0.52 J	0.76 J	0.67 J
Benzene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Bromodichloromethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Bromoform	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Bromomethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Carbon Disulfide	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Carbon Tetrachloride	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
CFC-11	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
CFC-12	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Chlorobenzene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Chlorodibromomethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Chloroethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Chloroform	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Chloromethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
cis-1,2-Dichloroethene	18	21	5.4	8.7	< 0.28	0.41
cis-1,3-Dichloropropene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Cyclohexane	< 0.23	1.4	0.32 J	< 0.21	< 0.28	< 0.25
Dichloromethane	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Ethylbenzene	< 0.23	78	2.2	0.12 J	< 0.28	< 0.25
Isopropylbenzene	< 0.23	3.4	0.18 J	< 0.21	< 0.28	< 0.25
Methyl Acetate	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Methyl N-Butyl Ketone (2-Hexanone)	< 0.46	< 1.6	< 0.93	< 0.41	< 0.57	< 0.5
Methylcyclohexane	< 0.23	38	5.4	< 0.21	< 0.28	< 0.25
Methyl-tert-butylether	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Styrene (Monomer)	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Tetrachloroethene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Toluene	6.4	2000	60	7.1	< 0.28	< 0.25
Total Xylenes	0.17 J	350	10	0.54	< 0.28	< 0.25
trans-1,2-Dichloroethene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
trans-1,3-Dichloropropene	< 0.23	< 0.81	< 0.46	< 0.21	< 0.28	< 0.25
Trichloroethene	51	< 0.81	< 0.46	< 0.21	< 0.28	0.42
Vinyl chloride	1.4	9.4	0.25 J	0.14 J	< 0.28	< 0.25
TVOCs	79	2500	84	18	1.4	2.1

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Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: O-8-14	O-8-14	nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R
Sample Midpoint Depth (ft):	1.5	4.5	31.5	34.5	37.5	40.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sampled ID:	O-8-14_1.5	O-8-14_4.5	nQ-10-14R_31.5	nQ-10-14R_34.5	nQ-10-14R_37.5	nQ-10-14R_40.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.057	0.18 J	< 0.3	< 0.36	< 0.28	< 0.36
1,1,2,2-Tetrachloroethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,1,2-trichloro-1,2,2-trifluoroethane	< 0.11	< 0.5	< 0.6	< 0.72	< 0.57	< 0.71
1,1,2-Trichloroethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,1-Dichloroethene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,2,4-Trichlorobenzene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,2-Dibromo-3-chloropropane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,2-Dibromoethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,2-Dichlorobenzene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,2-Dichloroethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,2-Dichloropropane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,3-Dichlorobenzene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
1,4-Dichlorobenzene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
2-Butanone (MEK)	0.13	0.63	0.76	0.91	0.7	0.87
4-Methyl-2-Pentanone	< 0.11	< 0.5	< 0.6	< 0.72	< 0.57	< 0.71
Acetone	0.16 J	0.73 J	0.86 J	1 J	0.73 J	0.94 J
Benzene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Bromodichloromethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Bromoform	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Bromomethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Carbon Disulfide	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Carbon Tetrachloride	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
CFC-11	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
CFC-12	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Chlorobenzene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Chlorodibromomethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Chloroethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Chloroform	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Chloromethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
cis-1,2-Dichloroethene	< 0.057	0.24 J	< 0.3	< 0.36	< 0.28	0.13 J
cis-1,3-Dichloropropene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Cyclohexane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Dichloromethane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Ethylbenzene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	0.46
Isopropylbenzene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Methyl Acetate	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Methyl N-Butyl Ketone (2-Hexanone)	< 0.11	< 0.5	< 0.6	< 0.72	< 0.57	< 0.71
Methylcyclohexane	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	0.18 J
Methyl-tert-butylether	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Styrene (Monomer)	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Tetrachloroethene	< 0.057	0.19 J	< 0.3	< 0.36	< 0.28	< 0.36
Toluene	< 0.057	0.13 J	< 0.3	< 0.36	< 0.28	0.16 J
Total Xylenes	< 0.057	0.15 J	< 0.3	< 0.36	< 0.28	1.4
trans-1,2-Dichloroethene	< 0.057	0.061 J	< 0.3	< 0.36	< 0.28	< 0.36
trans-1,3-Dichloropropene	< 0.057	< 0.25	< 0.3	< 0.36	< 0.28	< 0.36
Trichloroethene	< 0.057	0.21 J	< 0.3	< 0.36	< 0.28	0.095 J
Vinyl chloride	< 0.057	0.087 J	< 0.3	< 0.36	< 0.28	< 0.36
TVOCs	0.29	2.6	1.6	1.9	1.4	4.2

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Boring ID: nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R	nQ-10-14R
Sample Midpoint Depth (ft):	43.5	46.5	49.5	52.5	55.5	58.5
Date Sampled:	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014	12/17/2014
Sampled ID:	nQ-10-14R_43.5	nQ-10-14R_46.5	nQ-10-14R_49.5	nQ-10-14R_52.5	nQ-10-14R_55.5	nQ-10-14R_58.5
CONSTITUENT (unit in mg/kg)						
1,1,1-Trichloroethane	< 0.55	< 0.23	< 0.2	4.9	0.11 J	< 0.46
1,1,2,2-Tetrachloroethane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,1,2-trichloro-1,2,2-trifluoroethane	< 1.1	< 0.45	< 0.39	< 4.9	< 0.5	< 0.92
1,1,2-Trichloroethane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,1-Dichloroethene	0.29 J	< 0.23	< 0.2	0.5 J	< 0.25	< 0.46
1,2,4-Trichlorobenzene	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,2-Dibromo-3-chloropropane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,2-Dibromoethane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,2-Dichlorobenzene	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,2-Dichloroethane	0.39 J	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,2-Dichloropropane	0.15 J	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,3-Dichlorobenzene	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
1,4-Dichlorobenzene	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
2-Butanone (MEK)	1.6	0.5	0.46	< 4.9	0.65	0.64 J
4-Methyl-2-Pentanone	1.5	< 0.45	< 0.39	< 4.9	< 0.5	< 0.92
Acetone	1.2 J	0.78 J	0.61 J	< 9.8	0.69 J	< 1.8
Benzene	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Bromodichloromethane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Bromoform	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Bromomethane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Carbon Disulfide	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Carbon Tetrachloride	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
CFC-11	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
CFC-12	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Chlorobenzene	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Chlorodibromomethane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Chloroethane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Chloroform	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Chloromethane	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
cis-1,2-Dichloroethene	170	< 0.23	3.7	140	3.7	4.5
cis-1,3-Dichloropropene	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Cyclohexane	< 0.55	< 0.23	< 0.2	1.9 J	0.36	0.62
Dichloromethane	0.91	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Ethylbenzene	< 0.55	< 0.23	< 0.2	26	6.8	4.9
Isopropylbenzene	< 0.55	< 0.23	< 0.2	2 J	1.4	1.5
Methyl Acetate	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Methyl N-Butyl Ketone (2-Hexanone)	< 1.1	< 0.45	< 0.39	< 4.9	< 0.5	< 0.92
Methylcyclohexane	0.2 J	< 0.23	< 0.2	53	18	27
Methyl-tert-butylether	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Styrene (Monomer)	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Tetrachloroethene	< 0.55	< 0.23	< 0.2	2.5	< 0.25	< 0.46
Toluene	4.2	< 0.23	0.065 J	490	28	2.2
Total Xylenes	< 0.55	< 0.23	< 0.2	120	14	0.16 J
trans-1,2-Dichloroethene	0.45 J	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
trans-1,3-Dichloropropene	< 0.55	< 0.23	< 0.2	< 2.5	< 0.25	< 0.46
Trichloroethene	36	< 0.23	0.15 J	11	0.056 J	< 0.46
Vinyl chloride	3.8	< 0.23	0.14 J	< 2.5	< 0.25	< 0.46
TVOCs	220	1.3	5.1	850	74	42

Notes and Abbreviations on last page.

Table 4. Concentrations of Volatile Organic Compounds in Soil Samples from Soil Borings, Fixed Base Laboratory, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Notes and Abbreviations:

1. Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).
2. Samples submitted to fixed based laboratory were analyzed for the TCL VOCs using USEPA Method 8260C.
3. Samples analyzed on a wet weight basis.
4. Samples were collected every 4 feet per the Pre-Design Sampling Work Plan for VOC Source Area (Work Plan) (EMAGIN 2014)
5. Additional samples collected per Work Plan Addendum (ARCADIS 2014) were collected every 3 feet.

TVOCs are rounded to two significant numbers.

15 Indicates TVOCs greater than 10 mg/kg

Bold value indicates a detection

- RI/FS Remedial Investigation/Feasibility Study
- TCL Target compound list
- VOCs Volatile organic compounds
- TVOCs Total volatile organic compounds
- ft Feet below original land surface that existed prior to the Town of Oyster Bay bringing in cover material.
- mg/kg Milligrams per kilogram
- J Value is estimated



Table 5. Comparison of Field Analytical Method and Fixed Base Laboratory TVOC Results, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

Sample ID	Field Analytical Method TVOC Concentration	Fixed Base Laboratory Method TVOC Concentration	Are Field and Fixed Base Laboratory Concentrations Consistent With Regard to 10 mg/kg Criteria?
F-2-14_34	ND	<15.38	Yes (ND)
G-8-14_28	ND	<17.66	Yes (ND)
H-5-14_46	14.70	16.22	Yes (>10 mg/kg)
H-5-14_50	7.77	8.39	Yes (<10 mg/kg)
H-7-14_12	437.03	877.44	Yes (>10 mg/kg)
I-2-14_46	ND	0.16	Yes (<10 mg/kg)
I-2-14_50	0.5	0.54	Yes (<10 mg/kg)
J-4-14_46	16.50	16.55	Yes (>10 mg/kg)
J-4-14_50	2.10	3.78	Yes (<10 mg/kg)
K-10-14_52	ND	1.47	Yes (<10 mg/kg)
L-12-14_44	15.57	90.59	Yes (>10 mg/kg)
L-8-14_8	ND	1.921	Yes (<10 mg/kg)
L-8-14_44	13.49	2.48	NO
L-8-14_48	1.60	1.832	Yes (<10 mg/kg)
L-8-14_55	5.11	8.275	Yes (<10 mg/kg)
L-8-14_56	1.68	2	Yes (<10 mg/kg)
M-7-14_22	ND	0.34	Yes (<10 mg/kg)
M-7-14_52	2.40	3.497	Yes (<10 mg/kg)
M-7-14_56	1.75	2.06	Yes (<10 mg/kg)
M-9-14_24	ND	<16.03	Yes (ND)
M-9-14_46	4.23	6.181	Yes (<10 mg/kg)
M-9-14_57	0.55	0.88	Yes (<10 mg/kg)
n-12-14_48	5.00	10.736	NO
nJ-6-14_12	ND	0.2	Yes (<10 mg/kg)
NL-10-14_12	ND	<6.11	Yes (ND)
NQ-13-14_4	1.96	3.667	Yes (<10 mg/kg)
O-5-14_52	ND	1.85	Yes (<10 mg/kg)
P-12-14_36	ND	<14.26	Yes (ND)
P-12-14_44	17.48	23.549	Yes (>10 mg/kg)
P-12-14_53	1.76	2.791	Yes (<10 mg/kg)
P-7-14_56	ND	<23.16	Yes (ND)
P-9-14_16	219.12	281.21	Yes (>10 mg/kg)
P-9-14_20	28.08	36.5	Yes (>10 mg/kg)
P-9-14_32	ND	<15.42	Yes (ND)
P-9-14_44	39.53	57.633	Yes (>10 mg/kg)
Q-8-14_24	ND	<14.26	Yes (ND)
Q-8-14_44	11.44	16.3	Yes (>10 mg/kg)

Notes and Abbreviations:

mg/kg milligramms per kilogram
 ND Not Detected
 TVOC Total Volatile Organic Compound



Table 6. Concentrations of TCLP Volatile Organic Compounds in Soil Samples from Soil Borings, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Sample Location:	B-34	B-34	B-34	B-34	B-34	B-34	B-34	B-34	B-34
	Sample Midpoint Depth (ft):	4.5	7.5	13.5	34.5	43.5	46.5	49.5	52.5	55.5
	Sample Date:	5/12/2015	5/12/2015	5/12/2015	5/12/2015	5/12/2015	5/12/2015	5/12/2015	5/12/2015	5/12/2015
	Sample Name:	B-34 (4.5)	B-34 (7.5)	B-34 (13.5)	B-34 (34.5)	B-34 (43.5)	B-34 (46.5)	B-34 (49.5)	B-34 (52.5)	B-34 (55.5)
CONSTITUENT (units in ug/	Regulatory Limit (ug/l)									
1,1-Dichloroethene	700	< 20	< 20	< 20	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
1,2-Dichloroethane	500	< 20	< 20	< 20	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
2-Butanone (MEK)	200000	< 200	< 200	< 200	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U	< 200 U
Benzene	500	< 20	< 20	< 20	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Carbon Tetrachloride	500	< 20	< 20	< 20	< 20 UJ	< 20 UJ	< 20 UJ	< 20 UJ	< 20 UJ	< 20 U
Chlorobenzene	100000	< 20	< 20	< 20	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Chloroform	6000	< 20	< 20	< 20	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U
Tetrachloroethene	700	< 20	< 20	< 20	< 20 U	< 20 U	< 20 U	17 J	< 20 U	< 20 U
Trichloroethene	500	< 20	< 20	19	< 20 U	5,500	59	25	< 20 U	< 20 U
Vinyl chloride	200	< 20	< 20	< 20	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U

Notes and Abbreviations on last page.



Table 6. Concentrations of TCLP Volatile Organic Compounds in Soil Samples from Soil Borings, Park Soil Pre-Design Sampling, Northrop Grumman Systems Corporation, Operable Unit 3 (Former Grumman Settling Ponds), Bethpage, New York.

	Sample Location:	F-6-14	F-6-14	H-5-14	H-7-14	H-7-14	H-7-14
	Sample Midpoint Depth (ft):	10.5	16.5	46	8	16	20
	Sample Date:	5/8/2015	5/8/2015	5/12/2015	5/12/2015	5/12/2015	5/12/2015
	Sample Name:	F-6-14 (10.5)	F-6-14 (16.5)	H-5-14 (46)	H-7-14 (8)	H-7-14 (16)	H-7-14 (20)
CONSTITUENT (units in ug/l)	Regulatory Limit (ug/l)						
1,1-Dichloroethene	700	< 20 U	< 20 U	< 20	< 20 U	< 20 U	< 20 U
1,2-Dichloroethane	500	< 20 U	< 20 U	< 20	< 20 U	< 20 U	< 20 U
2-Butanone (MEK)	200000	< 200 U	< 200 U	< 200	< 200 U	< 200 U	< 200 U
Benzene	500	< 20 U	< 20 U	< 20	< 20 U	< 20 U	< 20 U
Carbon Tetrachloride	500	< 20 U	< 20 U	< 20	< 20 U	< 20 U	< 20 U
Chlorobenzene	100000	< 20 U	< 20 U	< 20	< 20 U	< 20 U	< 20 U
Chloroform	6000	< 20 U	< 20 U	< 20	< 20 U	< 20 U	< 20 U
Tetrachloroethene	700	< 20 U	< 20 U	< 20	< 20 U	< 20 U	< 20 U
Trichloroethene	500	< 20 U	< 20 U	< 20	< 20 U	11 J	< 20 U
Vinyl chloride	200	< 20 U	< 20 U	< 20	< 20 U	< 20 U	< 20 U

Notes and Abbreviations:

Bold value indicates a detection

- VOCs Volatile organic compounds
- ft Feet below original land surface
- ug/l Micrograms per liter
- J Value is estimated

Figures

XREFS: IMAGES: PROJECTNAME: ---
Xr1051X00 Aeria .pg
F07-VP27.pg
F08-B_4.pg
F09-B60.pg
Fig5XsecF.pg
Fig6XsecF.pg

SOURCE: SITE AERIAL PHOTOGRAPH ADOPTED FROM GOOGLE EARTH PRO WITH AN IMAGERY DATE OF 09/19/2011



NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK

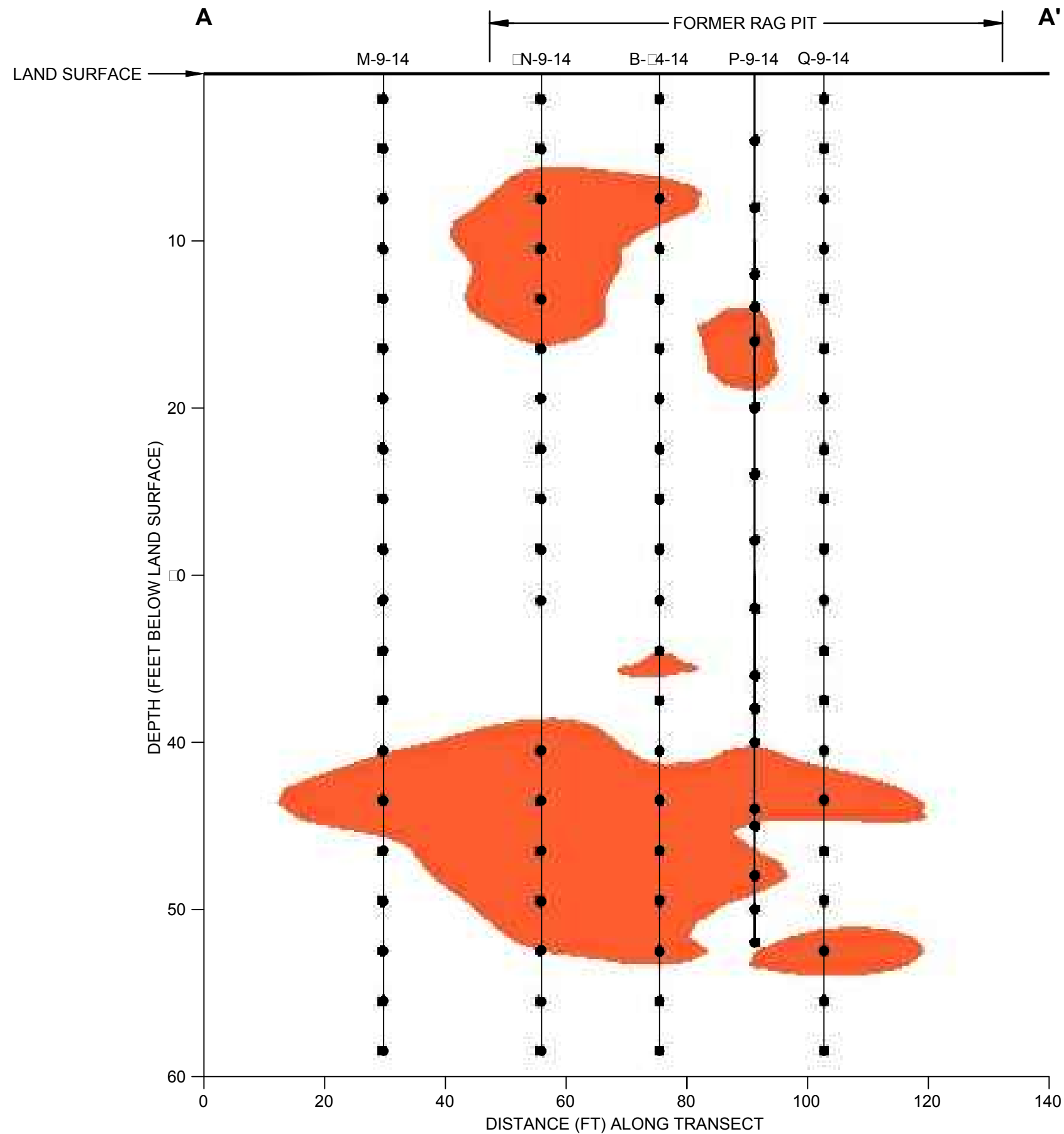
SITE AREA FEATURES



FIGURE

2

CITY:SYRACUSE,NY DIV:GROUP:ENV DBA:SANCHEZ LD:ALS PIC:Opt) PM:(Read) TM:(Opt) LYR:(Option="OFF=REF" G:\ENVCAD\SYRACUSE\ACT\NY0010510000\PAK\BIN\Y1051TVOC.dwg LAYOUT: 5 SAVED: 8/10/2015 2:52 PM ACADVER: 19.1S (LMS TECH) PAGES: 5 PLOTSETUP: PLOTSTYLETABLE: PLOTTED: 8/1/2015 2:28 PM BY: SANCHEZ, ADRIAN



LEGEND:

TVOCs GREATER THAN 10 mg/kg

M-9-14 SOIL BORING ID

SOIL SAMPLE

VERTICAL EXAGGERATION: 10x

TVOCs TOTAL VOLATILE ORGANIC COMPOUNDS
mg/kg MILLIGRAMS PER KILOGRAM

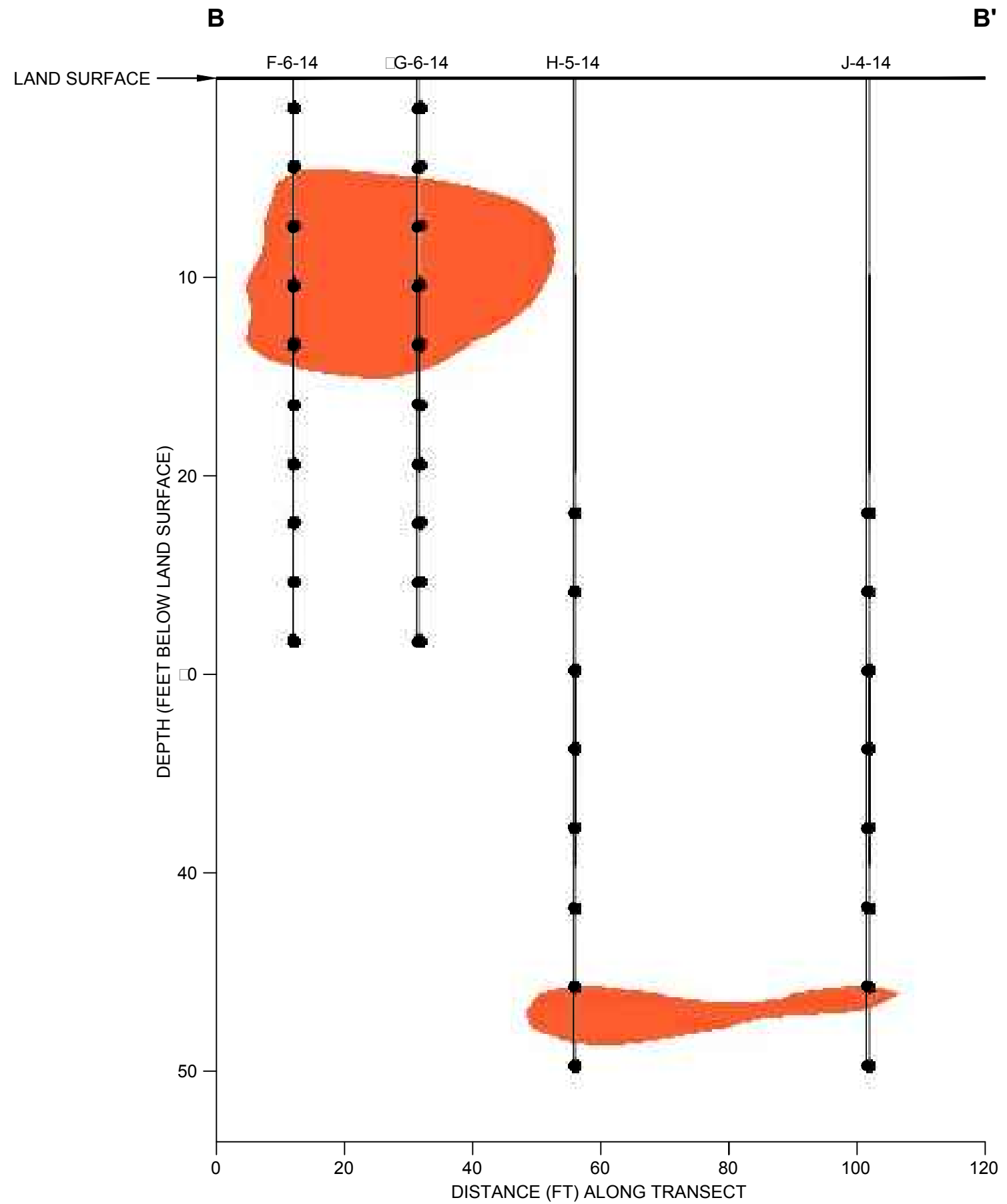
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BETHPAGE, NEW YORK

**BETHPAGE COMMUNITY PARK
CROSS SECTION A - A'
OF TVOCs IN SOIL (AREA 1)**



FIGURE
5

CITY:SYRACUSE,NY DIV:GROUP:ENV DBA:SANCHEZ LD:ALS PIC:Opt) PM:(Read) TM:(Opt) LY:(Option="OFF=REF" G:\ENVCAD\SYRACUSE\ACT\NY0010510000\PAK\BIN\Y1051TVOC.dwg LAYOUT: 6 SAVED: 8/10/2015 2:52 PM ACADVER: 19.1S (LMS TECH) PAGES: 6 PLOT: 1 PLOTSTYLETABLE: --- PLOTTED: 8/11/2015 2:28 PM BY: SANCHEZ, ADRIAN



LEGEND:

TVOCs GREATER THAN 10 mg/kg

F-6-14 SOIL BORING ID

SOIL SAMPLE

VERTICAL EXAGGERATION: □

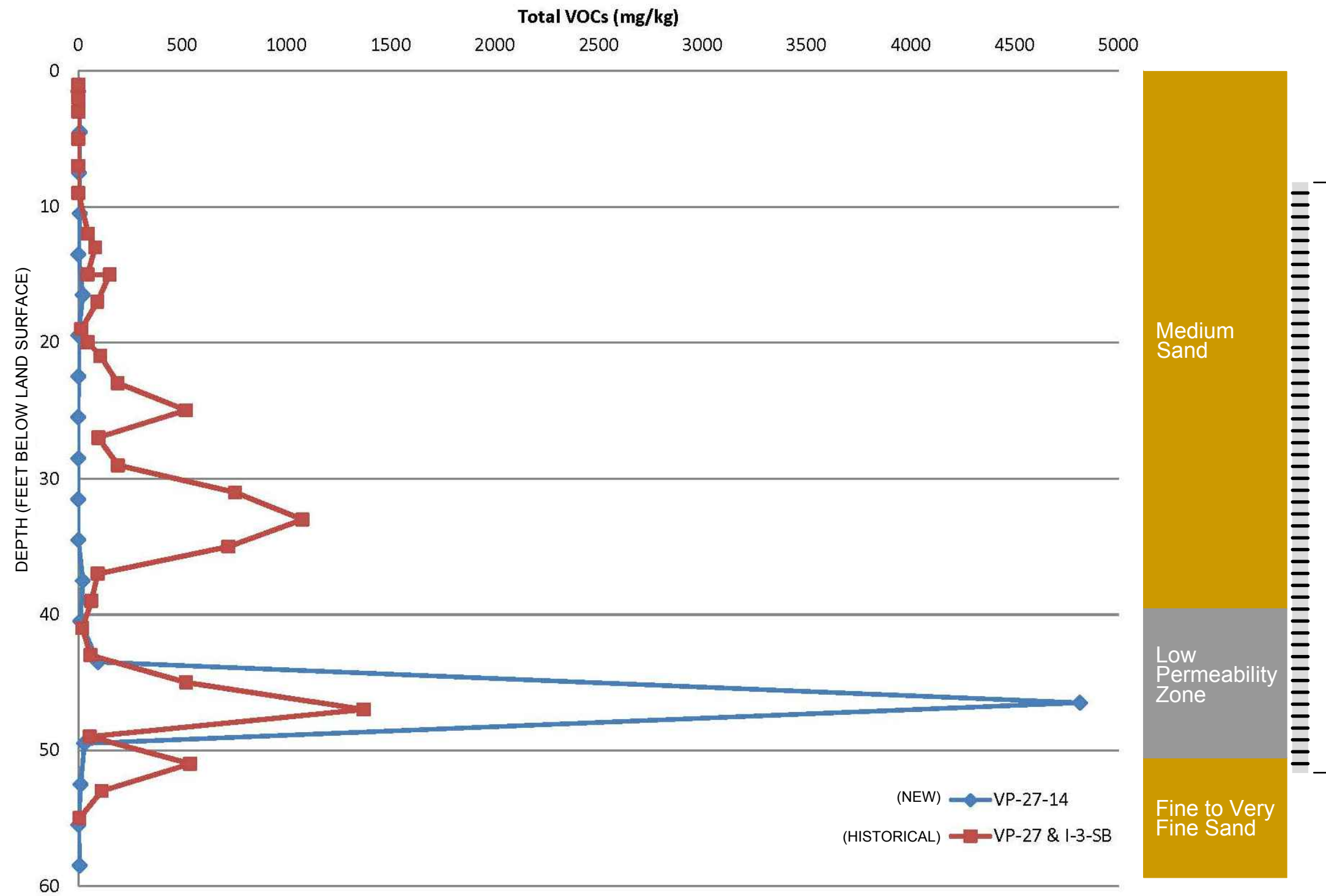
TVOCs TOTAL VOLATILE ORGANIC COMPOUNDS
mg/kg MILLIGRAMS PER KILOGRAM

NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK

**BETHPAGE COMMUNITY PARK
CROSS SECTION B - B'
OF TVOCs IN SOIL (AREA 2)**



CITY:SYRACUSE-NY DIV:GROUP:ENV DBA:SANCHEZ LD:ALS PIC:Opt PM:Read TM:Opt LVR:Option="OFF=REF" G:\ENV\CAD\SYRACUSE\ACT\NY0010510000\PAK\BIN\Y1051TVOC.dwg LAYOUT: 7 SAVED: 8/10/2015 2:52 PM ACADVER: 19.1S (LMS TECH) PAGES: 7 PLOT: 7 PLOTTED: 8/11/2015 2:28 PM BY: SANCHEZ, ADRIAN



THE SCREEN ZONE DEPICTED REPRESENTS THE TOTAL VERTICAL INTERVAL OVER WHICH THE BPSGCS EXTRACTION WELLS ARE SCREENED AND DOES NOT REPRESENT THE SPECIFIC SCREENED INTERVAL OF ANY SINGLE EXTRACTION WELL.

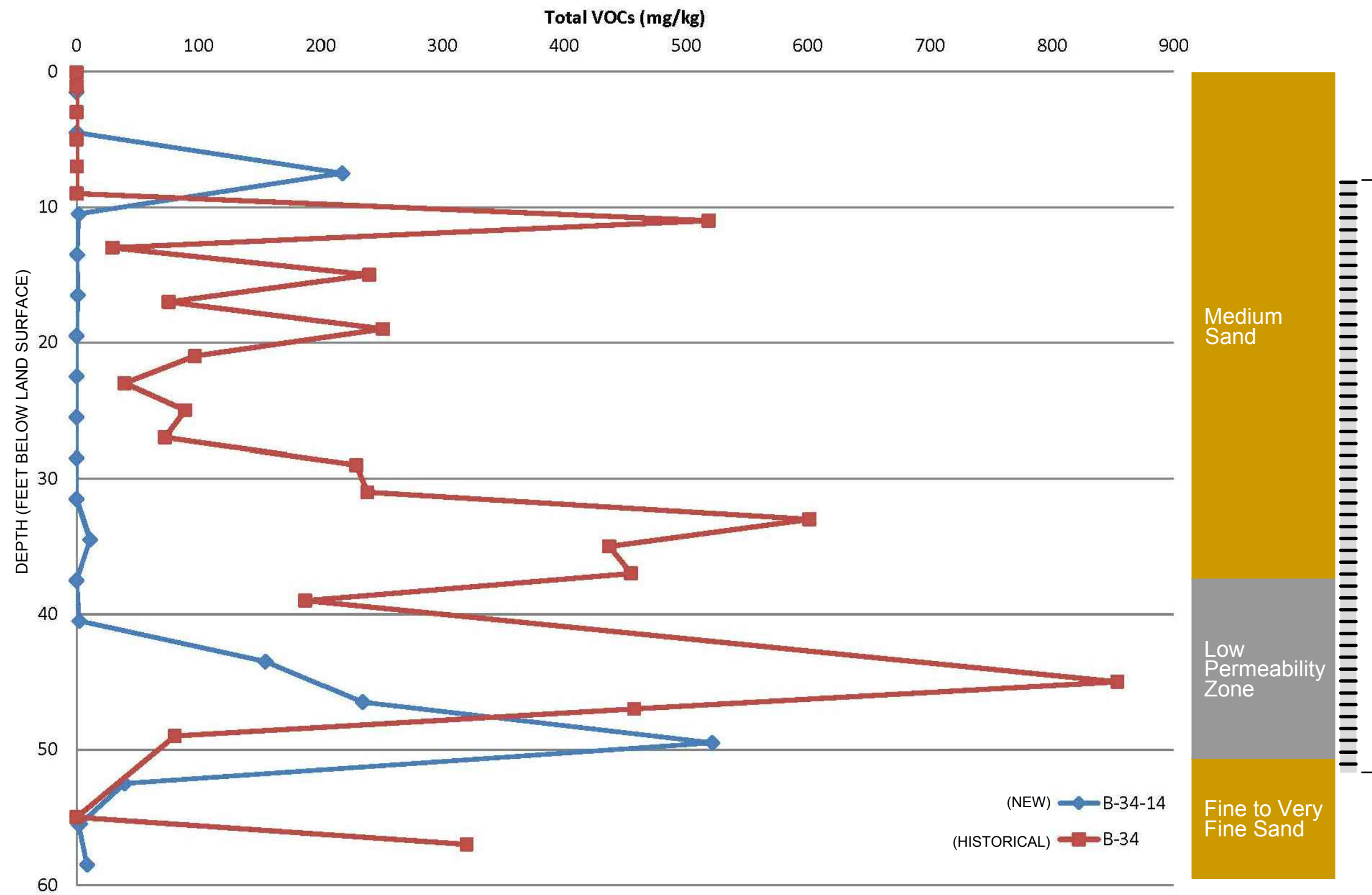
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 BETHPAGE, NEW YORK

**BETHPAGE COMMUNITY PARK
 VP-27 SOIL RESAMPLING COMPARISON**

ARCADIS

FIGURE
7

CITY:SYRACUSE-NY DIV:GROUP:ENV DBA:SANCHEZ LD:ALS PIC:Opt PM:Read TM:Opt LVR:Option="OFF=REF" LAYOUT: 8 SAVED: 8/10/2015 2:52 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 8/1/2015 2:28 PM BY: SANCHEZ, ADRIAN



THE SCREEN ZONE DEPICTED REPRESENTS THE TOTAL VERTICAL INTERVAL OVER WHICH THE BPSGCS EXTRACTION WELLS ARE SCREENED AND DOES NOT REPRESENT THE SPECIFIC SCREENED INTERVAL OF ANY SINGLE EXTRACTION WELL.

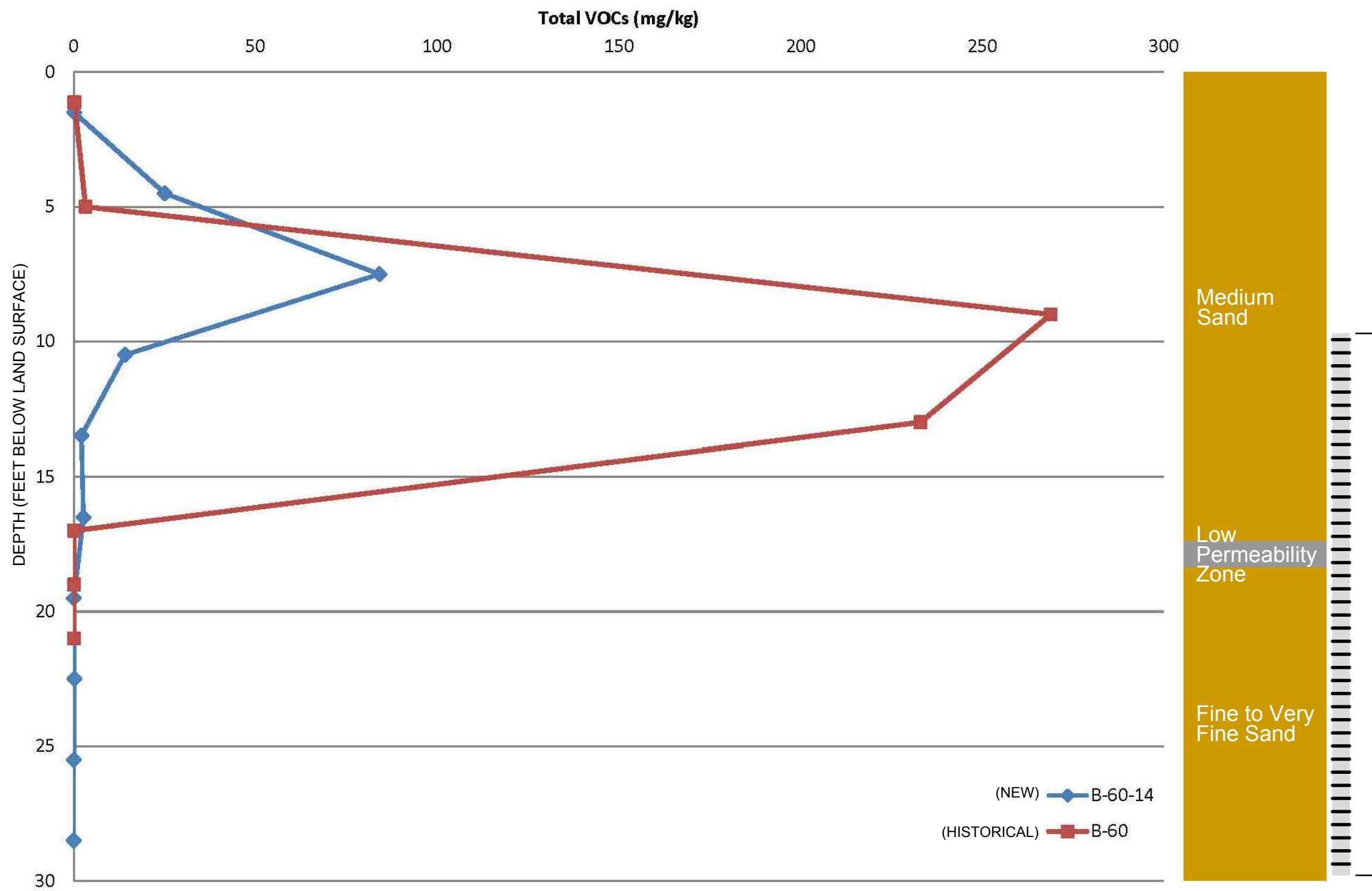
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 BETHPAGE, NEW YORK

**BETHPAGE COMMUNITY PARK
 B-34 SOIL RESAMPLING COMPARISON**

ARCADIS

FIGURE
8

CITY:SYRACUSE-NY DIV:GROUP:ENV DBA:SANCHEZ LD:ALS PIC:Opt PM:Read TM:Opt LVR:OptON="OFF=REF" G:\ENV\CAD\SYRACUSE\ACT\NY0010000\PAK\BIN\Y1051TVOC.dwg LAYOUT: 9 SAVED: 8/10/2015 2:52 PM ACADVER: 19.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 8/1/2015 2:28 PM BY: SANCHEZ, ADRIAN



THE SCREEN ZONE DEPICTED REPRESENTS THE TOTAL VERTICAL INTERVAL OVER WHICH THE BPSGCS EXTRACTION WELLS ARE SCREENED AND DOES NOT REPRESENT THE SPECIFIC SCREENED INTERVAL OF ANY SINGLE EXTRACTION WELL.

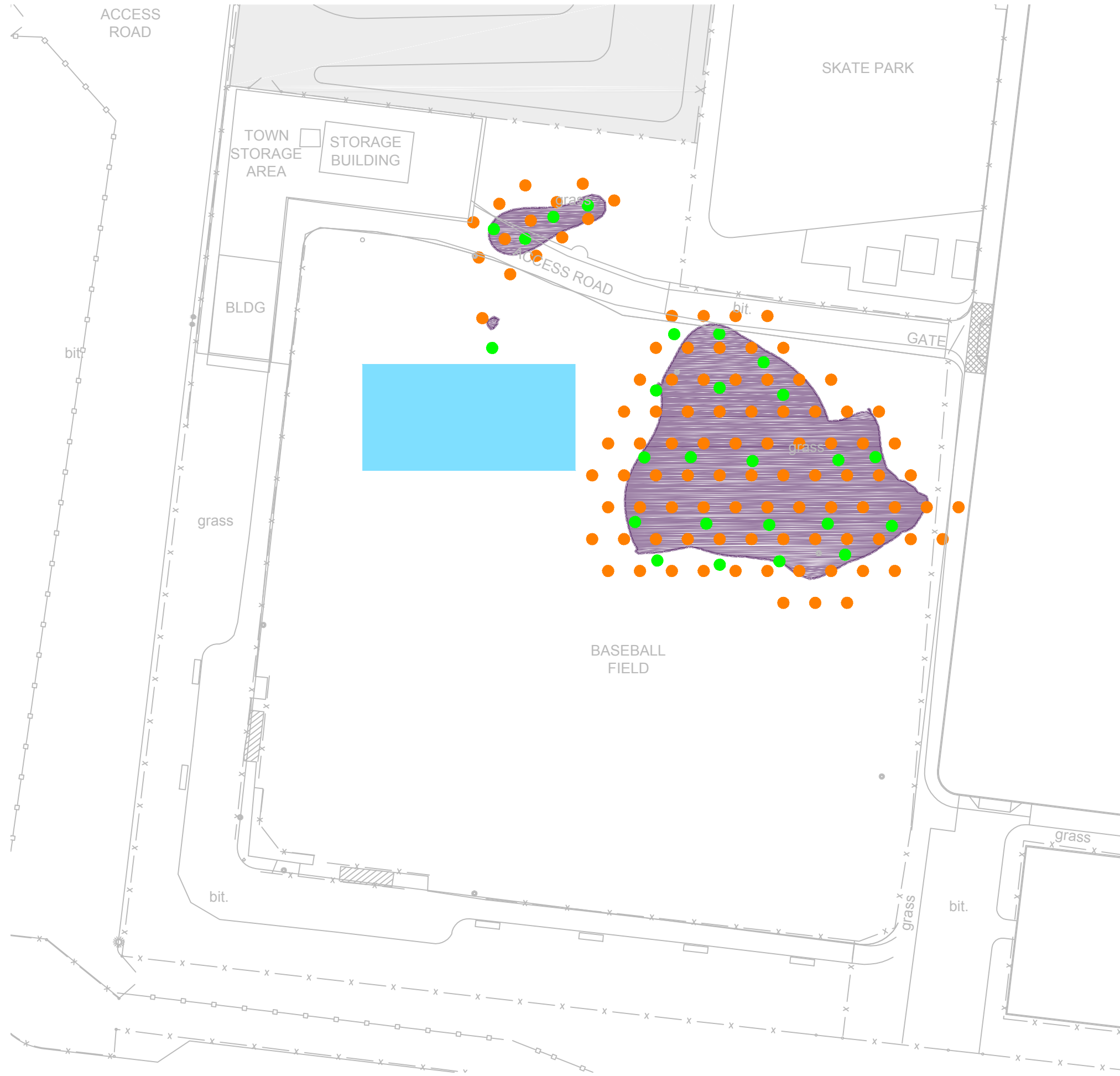
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 BETHPAGE, NEW YORK

**BETHPAGE COMMUNITY PARK
 B-60 SOIL RESAMPLING COMPARISON**





ARCADIS

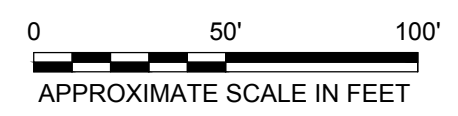
FIGURE
9

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LEGEND:

-  TVOC CONCENTRATIONS GREATER THAN 10 mg/kg IN SOILS 40-55 FEET BELOW LAND SURFACE
-  TREATMENT EQUIPMENT PAD
-  PROPOSED EXTRACTION WELL
-  PROPOSED HEATER WELL
- mg/kg MILLIGRAM PER KILOGRAM
- TVOC TOTAL VOLATILE ORGANIC COMPOUND



NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK

**CONCEPTUAL REMEDIAL PROGRAM FOR
IN-SITU THERMAL REMEDIATION AREA
(40-55 FEET)**




FIGURE
10